CALIFORNIA QUARTERLY

OF

SECONDARY EDUCATION

January, 1928

THE CALIFORNIA SOCIETY FOR THE STUDY
OF SECONDARY EDUCATION
2163 CENTER STREET, BERKELEY, CALIFORNIA

CALIFORNIA SOCIETY FOR THE STUDY OF SECONDARY EDUCATION

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The California Quarterly of Secondary Education is published by the California Society for the Study of Secondary Education, in four numbers during the school year, and is issued in the calendar months of October, January, April and June.

One dollar and fifty cents of each membership fee in the Society is for a year's subscription to The Quarterly.

Subscription to non-members is $3.00 per year; single copies, 75 cents. Annual subscriptions in all countries in the International Postal Union, $3.25.

Members and subscribers are requested to report at once any change of address, giving old as well as new address.

Entered as second-class matter, October 9, 1925, at the postoffice at Berkeley, California, under the Act of August 24, 1912.

Address all communications to

The California Society for the Study of Secondary Education,
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NOTICE OF ANNUAL MEETING

The annual meeting of the California Society for the Study of Secondary Education will be held at Hotel Virginia, Long Beach, California, on Thursday, April 5, 1928, at 4:00 o'clock P. M., for the purpose of electing members of the Board of Directors and for other purposes, as and in the manner provided in the By-Laws of the Society.

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THE CALIFORNIA QUARTERLY OF SECONDARY EDUCATION was established in October, 1925. An extension of its service was made possible in 1927 through a gift by Mr. Carl F. Schader of Santa Monica, California. In his letter of grant, Mr. Schader said:

"Every possible encouragement should be extended to teachers to use the scientific method in their study of problems in education and in the application of such study to the construction of a curriculum that will square itself with the constantly changing conditions of a modern, scientific age, embracing the physical, intellectual and spiritual nature of man. In this field I see great opportunity for laymen to co-operate with our educational leaders for the improvement of the public secondary schools of the State and Nation."

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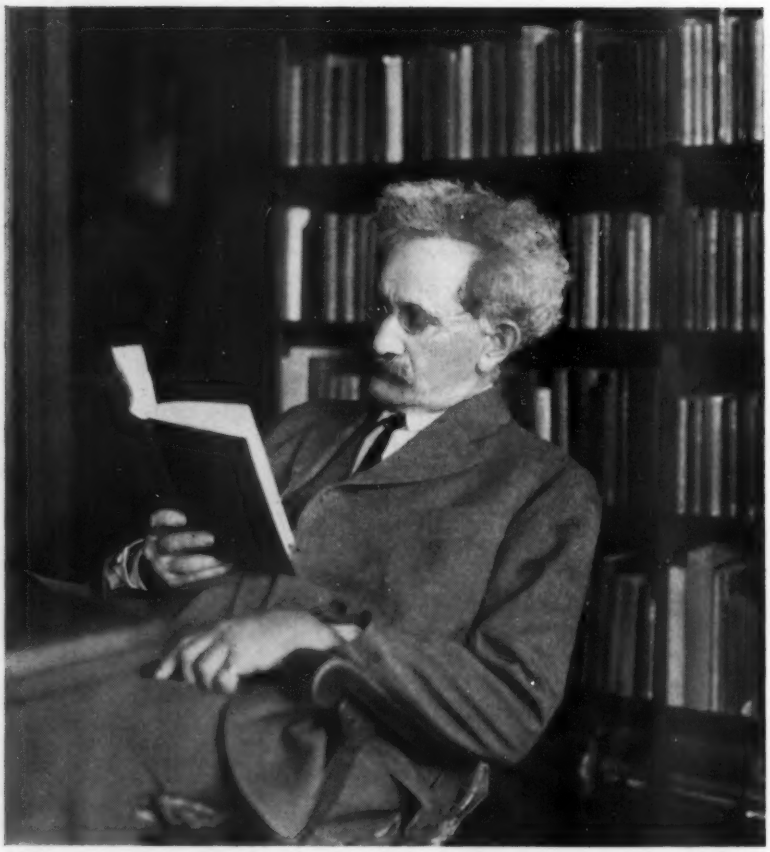

ALEXIS FREDERICK LANGE

(Refer to pp. 199-200)

THE TEACHING OF MATHEMATICS IN GERMAN SECONDARY SCHOOLS

CHARLES S. NOBLE
Professor of Mathematics, University of California

DURING three and a half weeks of the summer of 1926 I visited mathematics classes continuously in Goettingen, Berlin, Dresden, Stuttgart, and Hamburg.

The statements which follow have to do primarily with conditions in Prussia. In the other German states the departures from the Prussian system are, in general, inconsiderable. The head of the Prussian school system is the Minister of Science, Art, and Popular Culture (Minister fuer Wissenschaft, Kunst, und Volksbildung). The regulations governing all educational institutions are issued by him; but the immediate control of the schools of any province is entrusted to the Provincial School Board (Provinzial-Schulkollegium) of that province.

Three Types of Secondary Schools. There are now, as before the war, three main types of secondary schools in Germany. These are the Gymnasium, or classical school; the Realgymnasium, or Latin-modern language school; and the Oberrealschule, or mathematics-natural science school. They are all nine-year schools. The revolution abolished the three-year preparatory school (Vorschule) which was attached formerly to each of the three types, and set up the universal four-year preparatory school (Grundschule), upon which every higher German school rests. Every German child enters the Grundschule at six years of age. The normal ages in the full secondary school are thus from ten to nineteen. Graduation from the secondary school automatically admits the pupil to the university. At that stage the pupil's training is at least two years beyond that of the graduate of an American high school, as to breadth, and still farther ahead as to thoroughness.

The Gymnasium. The official guide for the Prussian secondary school is the ministerial edict, issued in April, 1925, Richtlinien fuer die Lehrplane der hoeheren Schulen Preuszens. According to this edict, the aims of the several secondary schools appear to be, among others, as follows: The Gymnasium has particular problems which pertain to instruction in Greek and Latin, the characterizing subjects of this school. The study of ancient language clarifies and settles the mind, widens the horizon, and deepens the understanding for history and the mother tongue; but the more important problem of the Gymnasium is that of sternly disciplining the pupil's mind, through his efforts to express his thoughts in a remote language, and of accustoming him thereby to a method of work which he can apply in other fields. The attempt to understand sympathetically the great ancient masterpieces of literature must bring growth and enrichment of the spirit.

The Realgymnasium has as its particular problem the giving to young people an understanding of German culture as rooted in Roman culture and Christianity, as historically related to Western culture, and as influenced by mathematical and scientific thought. This problem places special importance on instruction in modern languages. The young mind will be clarified and strengthened by thorough study of the English and the French languages, with the supplementing help of the Latin. Mastery of the creative thought of Western European Civilization, acquaintance with its great literature, will be of supreme importance for the historical, political, and humane training of the youth.

The Oberrealschule, like the other secondary schools, aims to guide the pupils to a historically grounded understanding of our times and of the problems of German culture. The pre-eminence assigned to mathematics and natural science, as this school's characteristic subjects, must not give the Oberrealschule the stamp of a technical school, but must serve to unfold the possibilities that lie in these subjects for philosophical, humane, and historical culture, and to make them useful for the ultimate purpose of the school.

The secondary schools for girls have the same aims and fundamental problems as those for boys. For the Lyzeum, a six-year school, no special cultural aim can be stated. This school is the foundation of all the secondary schools for girls. The Oberlyzeum, as a modern language school, corresponds, essentially, to the Realgymnasium. Corresponding to the Gymnasium and to the Oberrealschule, respectively, are the gymnasiale Studienanstalt and the Oberlyzeum der Oberrealschulrichtung.

The curriculum of each type of secondary school is heavy and is substantially prescribed. It is, however, less inflexible than formerly, inasmuch as the reform has introduced subsidiary types of school for both sexes, designed to permit a greater variety of choice. Furthermore, one finds that the schools here and there are still further modified, at the discretion of the Provinzial School Board, by bifurcation in the upper classes, according as the local demand is for Latin, for this or that modern language, or for mathematics and science; the desired emphasis in one of these fields being affected at the expense of one of the other fields. This brings about a flexibility quite comparable with that in our American schools.

The Curriculum in Mathematics for the Prussian Gymnasium

It may be interesting to set out the curriculum in mathematics for, say, the Prussian Gymnasium, the secondary school in which that subject is least heavy. The "Richtlinien" prescribe as follows:

VI (Sexta)

The four fundamental rules with integers, German weights, measures, and coins. Practice in writing and calculating with decimals. Applications to home and community life. Intuitional treatment of space-forms with especial reference to the needs of instruction in physical geography.

V (Quinta)

Continued practice with denominate decimals. Divisibility of numbers. Four fundamental rules with fractions. Representation of numbers by means of line segments and areas. Rule of three. Applications to home, community, and state. Continued study of space-forms.

IV (Quarta)

Arithmetic. Four fundamental rules with decimals; changing common fractions into decimals and conversely. Short methods. Simplest cases of percentage, discount, and interest, and other problems of everyday life, with applications of the rule of three. Representation of number sequence by means of line segments and areas. Use of tables, especially calculation of mean values and ratios. Applications to the life of the community and state.

Geometry. Intuitional development of fundamental notions, sides and angles of triangles. Simplest triangle constructions. Congruence theorems.

Geometrical Drawing and Measurement. Practice in the use of ruler, drawing triangles, and compasses. Drawing of parallels and perpendiculars and nets of cubes, parallelopipeds, tetrahedrons, and octahedrons. Orthogonal projection of cube and parallelopiped. Construction of the space diagonals of these bodies. Construction of prisms and pyramids and of nets of these solids. Measurement of segments and angles.

UIII (Unter Tertia)

Algebra. Introduction of operations with letters. Four fundamental operations with integral and with fractional numbers. Representation by means of segments and rays. Calculation of tables from formulas. Simple equations of first degree with one unknown, in connection with operations with rational numbers. Introduction of linear function, if possible. Drawing of curves.

Geometry. Completion of the study of triangles. Continued construction of triangles. Theory of quadrilaterals, especially parallelograms and trapezoids. Calculation and comparison of areas (Pythagorean theorem). Extension of geometrical considerations and measurements to space.

Geometrical Drawing and Measurement. Projection of points, line segments, and plane figures upon the plane. Angle of inclination of line and of plane. Intersections of two planes whose traces and inclinations are given. Pyramids. Roofs. Measure of segments and angles.

OIII (Ober Tertia)

Algebra. Equations of first degree with one or more unknowns; simple applications, especially from everyday life. Introduction of graphical representation of empirical functions; representation of linear functions (the linear function as straight line) and its use in solving equations of first degree. The function $y = mx$. Use of millimeter paper.

Geometry. Circles. Further study of space forms.

Geometrical Drawing and Measurement. Simple masses of shrubbery and borders of garden paths. Measurement of segments, angles, and areas.

UII (Unter Sekunda)

Algebra. Powers with positive and negative integral exponents. The function $y = x^n$, n positive or negative, and its graphical representation, especially the graphs of the general parabola and of the rectangular hyperbola. Operations with radicals, and their graphs. Extraction of square root. Exponential and logarithmic functions. Inverse of a function. Four place logarithmic table and the use of logarithms. The slide rule. Quadratic equations with one unknown.

Geometry. Equality of ratios between segments; theory of similarity. Application to circle and right triangle. Length and area of circle. Selections from the history of geometrical problems (e. g., quadrature of the circle). Calculation of simplest figures.

Geometrical Drawing and Measurement. Tri-rectangular axes; the regular bodies in axonometric representation. Curve drawing in connection with algebra. Approximate constructions (circle). More exact measurements (Nonius). Surveying in connection with the theory of similarity.

OII (Ober Sekunda)

Algebra. Simple integral and rational functions. Simple equations, and systems of equations which can be solved by quadratic equations—numerical and graphical treatment. Arithmetic and geometric series. Infinite geometric series. Compound interest and bonds, with applications from commercial life (political arithmetic). Binomial theorem with positive integral exponent.

Geometry. The trigonometric functions. Simple triangle calculations. Goniometry. Notion of periodic function. Geometrical calculations continued.

Geometrical Drawing and Measurement. Projection of the circle. Constructions for trigonometric problems, including those whose data are not all in one plane. Curve drawing in connection with algebra. Simple exercises in surveying and leveling.

I (Prima)
(Includes UI and OI)

Algebra. Introduction to infinitesimal calculus. Definition of differential quotient, its geometrical and its physical significance; its application to rational and, if possible, to trigonometric functions, especially in the calculation of greatest and least values, points of inflexion, inflexional tangents, etc. Simplest exercises in finding areas and volumes with the aid of integral calculus (e. g., sphere, paraboloid, etc.). Construction of the number system, from the positive integer to the complex number. Simple representations by means of functions of a complex variable.

Geometry. Review of the curvilinear figures thus far studied and the introduction to analytic geometry as far as the general equation of second

degree. Supplementary theorems from stereometry (sphere). Straight line and plane in space. Plane and cone. Fundamental notions of spherical trigonometry (sine theorem and cosine theorem). Applications to geodesy and astronomy.

Geometrical Drawing and Measurement. Fundamental problems on the point, line, and plane. Conic sections. Projection of the sphere. Simple astronomical observations with measurements and calculations.

Review from historical and philosophical points of view.

The following tabular program of the Prussian Gymnasium indicates the number of hours devoted each week to each subject during the nine years. It is taken from the Ministerialerlasz of October 31, 1924, Berlin. The "hours" are about forty-five minutes in length.

GYMNASIUM

	VI	*V*	*IV*	*UIII*	*OIII*	*UII*	*OII*	*UI*	*OI*	*Total*
Religion	2	2	2	2	2	2	2	2	2	18
German	5	4	3	3	3	3	4	3	3	31
Latin	7	7	7	6	6	5	5	5	5	53
Greek	....	....	....	6	6	6	6	6	6	36
Modern Language	....	....	3	2	2	2	2	2	2	15
History	....	1	2	2	2	3	3	3	3	19
Physiography	2	2	2	1	1	1	1	1	1	12
Mathematics	4	4	4	3	3	4	3	4	4	33
Natural Science	2	2	2	2	2	2	2	2	2	18
Drawing	2	2	2	2	2	1	1	1	1	14
Singing	2	2	....	....	....	....	....	....	....	4
Total	26	26	27	29	29	29	29	29	29	253

In addition to the above there is a weekly prescription of: 4 hours for physical exercise during the entire course of nine years; 4 hours for music during the seven years IV to OI, inclusive; 6 hours for Arbetitsgemeinschaften during the three years OII to OI, inclusive.

	VI	*V*	*IV*	*UIII*	*OIII*	*UII*	*OII*	*UI*	*OI*
Physical Exercise	4	4	4	4	4	4	4	4	4
Music	....	....	4	4	4	4	4	4	4
Arbeitsgemeinschaften	....	....	....	....	....	....	6	6	6

It will be seen that the weekly program of the German pupil contains at least 50 per cent more hours than that of the American high school pupil.

Another striking difference is that whereas in American schools plane geometry is studied daily for one year, to the exclusion of all other mathematics, and similarly for algebra; in Germany all the types of mathematics are studied during the same year. Algebra, including arithmetic, and geometry, including trigonometry, are carried on abreast or in close alteration, at the discretion of the teacher, according as they supplement one another.

General Principles and Suggestions

The "Richtlinien" of 1925 not only define the aims and prescribe the programs for the secondary schools, but they set out, under the heading "Grundsaetzliches und Methodisches" a very considerable body of general principles and of suggestions as to method, both in general and as applying to particular subjects. The following excerpts will, perhaps, indicate the character of the general advice:

"The Richtlinien are issued in order to insure the same goal and standard for all secondary schools, and to facilitate the movement of pupils from one school to another. The subject matter therein outlined is to be thought of as offering a range of choice in preparing the curriculum of a school.

"The most important point of view for the Richtlinien is the placement (Einordnung) of the secondary schools within a single unit (in die Einheitsschule), and the guarding of the German cultural unity (Bildungseinheit) in the face of the varied nature of the secondary schools. The subjects which further German culture values appear, therefore, as fundamental subjects (Kernfaecher*) in the center of all secondary school programs. This central placing of the 'Kernfaecher' provides the inner connection of the secondary school with the Volkschule and of the secondary schools with each other.

"Each type of secondary school has its characteristic subjects of instruction, to which the special task of that school assigns corresponding importance in the total work of the school. The accomplishment of this task is achieved through the mutual interaction of the characteristic subjects and the 'Kernfaecher.'

"The emphasis upon the problem of training; the placing as a goal the harmonious building of personality; the demands of national training, of training for citizenship, of training in art and in philosophical outlook require the knitting together of the teaching in different subjects into an organic whole, rather than the separate teaching of subjects, as was the case formerly.

"The teaching should be fundamentally a teaching to *work* (Arbeitsunterricht). This requires of the teacher, in his choice of topics, that he should not have as his goal the imparting of information, but that he should continually watch for those powers of the pupil which can be developed and increased, especially those of judgment, personality (Gemüt), imagination, and will. The principle of Arbeitsunterricht requires that classwork shall be 'working together' of the pupils, in mutual give and take, under the guidance of the teacher. All depends upon giving such direction to this work as will correspond to the capacity of the pupil and the aim of the school. To make the bridge between the acquirement of certain knowledge, without which high mental activity is impossible, and the acquirement of the power of independent work, without which mere knowledge is sterile, is the great and serious problem of Arbeitsunterricht.

"Even in the upper classes, the chief work should be done in the school. Nevertheless, every encouragement should be given to the pupil, through his homework, to gain an independence. The homework must develop out of class instruction, and its results must be made useful for the entire class by classroom discussion. Homework which cannot be so handled should be avoided.

"The hours fixed in the school program for colloquia (Arbeitsgemeinschaften) are to be used to deepen and complete the culture work (Bildungsarbeit) which characterizes the school. They are not to be devoted, therefore, to subjects not included in the curriculum nor to be used to increase the number of hours prescribed for any subject; since participation in an Arbeitsgemeinschaft is voluntary. Consequently, in arranging for an Arbeitsgemeinschaft in any subject it is essential to consider the special gifts and trend of interest of the pupils who take part. Any subject in the curriculum may be thus considered and as many as possible should be. As a rule, no pupil should enroll in more than four Arbeitsgemeinschaften."

Graduation Examination

The graduation examination (Abiturienten-Examen, Maturitaets-Examen, Reifepruefung) is held during the last quarter of the last year. It is

* These are religion, German, history, physical geography (Erdkunde).

conducted by an examining committee made up of the regular teachers of the last year, the principal (Direktor) of the school, and a member of the provincial school board, who represents the state and presides. The examination consists of a written test in four subjects, of an oral test, and of an examination in gymnastics (Leibes-Uebungen). Each member of the committee is expected to become personally acquainted with each candidate before the examination; and no teacher-member may vote on any pupil who has not been in one of his classes during the last year. Any candidate may, in partial satisfaction of his examination, submit a Jahres-Arbeit, i. e., a paper prepared at home upon a topic selected from one of the school subjects in science or art, normally in connection with an Arbeits-Gemeinschaft. Each pupil must petition in writing for an examination, and a conference of the teachers determines, in each case, whether, on the ground of capacity, attainment, and character, the pupil may be admitted to the examination and whether the Jahres-Arbeit may be substituted for the written test in any one of the four subjects. The physical examination is designed to test the pupil in dexterity, strength, quickness, endurance, pluck, determination, will power, presence of mind, and independence.

The written examination consists of a test in (1) German; (2) mathematics; (3) foreign language; (4) a second foreign language, except in the Oberrealschule, for which this subject is physics, chemistry, or biology. The examination is designed to test mental maturity and ability, rather than information. The written tests are all held in the presence of a teacher. Each comes on a separate day and lasts not to exceed 5½ hours for German, 4½ hours for mathematics, three to five hours for natural science, depending upon whether an experiment is involved, and three hours for foreign language. If dishonesty is detected, the pupil is denied graduation with his class, or is required to repeat the examination, according as the dishonesty is premeditated (vorbereitet) or not.

Upon conclusion of the written examination a conference of class teachers determines which pupils are to be admitted to the oral examination, and in which subjects of the last two years (Prima) each pupil is to be tested; and likewise reports to the examining committee, in the case of each pupil, the subject in which he elects to exhibit special competence. If the pupils are examined in groups, the test of a group may not be prolonged beyond the normal length of a school day. The oral examination in each subject must be informal; the questions must be asked by a teacher of that subject; and the object should be to test, not information, but power of comprehension, organized knowledge, and judgment. In mathematics the pupil should show understanding of mathematical relation, appreciation of the methods of analysis, and ability to solve problems.

Classroom Methods

The teachers were almost always men of good presence and pleasing personality who obviously had the confidence of the pupils. On two occasions I saw a teacher browbeat and humiliate his pupils, but as a rule, the relations were kindly and rooted in the teacher's desire to be helpful.

This did not mean, however, that the class exercise was not a very serious affair. The teachers, although sympathetic and tactful, were adamant in their insistence upon good use of the mother-tongue, upon statements that were grammatical, coherent, clear, and easily audible when oral, neat when written; upon promptness of movement when going to the board, and, while there, upon readiness of talking and writing at the same time. This insistence began in the earliest classes and became, usually, a matter of course in the later ones.

The class exercise was never stereotyped. It was never a lecture, even in the class of Prima, which corresponds to those of our freshman and sophomore years. On the other hand, no class had a textbook in the sense in which we use the word, i. e., from which there are definite assignments for home study. There was a book in the hands of each pupil, to be sure, but it was usually only a syllabus; at times it was a collection of exercises with a brief development of the theory; at other times a full text. But in no case did I see, or learn of, an assignment of a lesson in the text. With many variations, according to circumstances, a class exercise included an oral discussion of things recently considered, either of the exercises that had been assigned for home work, or of the theoretical developments of the last hour. During this discussion the teacher quizzed. This would be followed by the development of new theory—the teacher at the board drawing out the pupils, calling for suggestions for the next step, encouraging, criticizing.

The pupils took notes in ink, which they submitted later to the teacher, worked up at home, if necessary, but in any event, neatly done. There was more or less dictation by the teacher of important things, especially in the less advanced classes. This development of new theory was followed by illustrative examples. Here pupils were called to the board (or volunteered), one at a time, to show that they could apply the new principles. I never saw more than two pupils at the board at once, and then one of them was instructing the other. While a pupil was at the board, those at their seats were called on for suggestions or corrections. Toward the close of the hour there would be an assignment, for home work, of one or two problems (not many, as with us), or of some development not yet completed in class. This seemed to be, in the main, the plan of class lessons.

The first reaction of an American teacher to this description would probably be a judgment that progress would be too slow. But the class exercise always seemed to be so well planned that the work moved rapidly, even if deliberately; and it was surprising to see how much was accomplished. I was further surprised to learn how little home study was expected. Repeated inquiries as to the total time for all subjects brought varying estimates, but in no case was it more than fifteen hours a week for the upper classes. One must bear in mind, however, that the Gymniast has from thirty to thirty-six periods per week of class work, against about twenty, as in America, and that such subjects as foreign language, natural science, and mathematics run through the entire course of nine years. The

total number of year-hours in mathematics is thirty-three in the Gymnasium, thirty-six in the Realgymnasium, and forty-three in the Oberrealschule. It is the insistent, steady training, over a long period, that yields the remarkably able product of the German schools.

No Provision for Different Sections. There was no provision made in any class of any school for the separation into different sections of pupils of differing ability such as I had observed in English schools. The better pupils in a class were assigned additional tasks and encouraged in this way to make more progress. The Arbeitsgemeinschaft is looked upon primarily as offering fuller opportunity for gifted pupils. It resembles the university colloquium. It is open to those pupils of the upper classes who show especial interest in some subject of the curriculum and who wish, under the informal guidance of a teacher of that subject, to widen their knowledge and test their ability.

Mathematics Taught in Association with Physics. Two factors which contribute to the excellence of the training in German schools are that mathematics is taught in close touch with physics, frequently by the same teacher, and, secondly, that geometrical drawing is taught throughout the entire nine years. This assists materially in the cultivation of the space sense. It is noteworthy also that geometry is begun in the first year of the school, when the pupil is ten years old, earlier than is usually thought possible in America. This instruction is, at first, only intuitional—demonstration comes later—and the pupil is at once encouraged to enlarge his notions of three dimensional space, the space in which he has had experience. One excellent teacher declared to me that it was absurd to start a boy with plane figures when solids are what the child first sees. He sometimes found, with his maturer pupils, that their perception with solid figures was immediate in problems where he was puzzled, because he had been trained in the old way which suppresses and warps the child's experience.

Projective Geometry. In a Hamburg school I found projective geometry being taught to two classes in UI, corresponding, roughly, to our freshman year. I was told that this was the only school in Germany where this subject was taught. The University of California is one of the few institutions in America, if not the only one, where projective geometry is offered to freshmen. In both cases the situation arose from the presence of a stimulating teacher who was an enthusiast for that subject.

Emphasis upon Theoretical Development. The teaching in all the schools which I visited was marked by more emphasis upon careful, detailed attention to theoretical development and less upon illustrative numerical problems than is the case in American schools and colleges. This was as noticeable in the Oberrealschule, where future engineers would be enrolled, as in the classical schools.

German Schools Relatively Small. It appears to be the German policy to keep the secondary schools relatively small, even in the cities. In

Greater Berlin, there are, I was told, 150 secondary schools. The largest of these which I saw, had an enrollment of 700 and it was considered unwieldy. The maximum enrollment in classes appears to be 33 in the upper, 44 in the middle, and 55 in the lower school. The classes which I saw were usually considerably smaller than this. The school enrollments have increased materially since the war, to the embarrassment of the state, whose enforced economy has resulted in a shortage of teachers. In consequence, many teachers are overloaded with school duties. I saw teachers who carried from 25 to 35 hours a week. These statements apply also to the girls' schools, although the shortage of teachers in them is perhaps less pressing, because the teaching staff includes women. (Theoretically one-half in Prussia, at least one-third in Wuertemberg, must be women.)

School Reform to Overcome Materialism. The purpose back of the recent school reform in Germany, according to one Direktor, was to overcome the materialism of the German people. This materialism was due, so the leaders thought, to too excessive concern with intellectual things, too little with things of feeling. A corrective was sought in a plan which would direct less attention to science and mathematics and more to music, art, etc. The immediate method was to give more prominence to modern languages so that Germans could read foreign literature and come into touch with other people. The reason for the decrease in the number of school hours lay in the opinion of medical men that pupils worked too hard; and the reduction was made at the expense of mathematics and science.

The revolution was followed by a remarkable growth of school interest in music, physical exercise, and games, although the movement started before the war. Under the old program, gymnasium exercise (Turnen) was prescribed but evadable. Now every pupil must devote scheduled hours to Turnen, take part in prescribed games, and devote assigned hours to music—vocal, if he has a voice, otherwise instrumental. Numbers of teachers stated that the tone of the pupils had improved noticeably with the spread of interest in outdoor games. As one teacher put it, there was doubtless truth in the common assertion that the pupils studied less than formerly; but, as compensation, they were a healthier and more wholesome group; their attitude toward life had improved; the relation between teachers and pupils was increasingly sympathetic and intimate.

Another form of serious employment of outdoor time is found in the Schueler-Heime, where the pupils, in groups, under the supervision of a teacher spend a few days in the country, carrying on some of their regular studies or doing special problems. The Landheim, near Goettingen, is a remodeled country inn together with a number of acres of attractive, rolling, wooded country. The building is used for meals and beds; most of the waking time, including that given to study, is spent in the open.

Definite provision was made, in all the schools which I visited, for the organization of physical exercise and music by starting the school early, sometimes at seven in the morning, and finishing by one or one thirty o'clock. Time for the "Kunstfaecher" was thus made in the afternoon.

RECENT AND PENDING CHANGES IN GERMAN SCHOOLS*

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THE information here given is compiled from statutory and statistical material thus far obtainable; it is neither exhaustive nor complete.

Centralization of School Control. It is generally recognized that education in Germany is organized under a highly centralized control. The initiative for new measures is usually taken by the largest of the several states, and the remaining states soon follow suit. Nevertheless, the state of Hamburg which includes the Cuxhaven district (at the mouth of River Elbe) was the first to promulgate and execute definite plans for the new unification school system known as Einheits-Schule. In the State of Prussia the control over all education was formerly vested in the hands of one cabinet official, then known as the Kultus-Minister, or with his more explicit designation, as the minister of the clergical, educational and medical functions. The ever increasing duties of this office had to be subdivided, and the school affairs are now controlled by the minister of science, art, and general education, and by the minister of the clergical and higher educational functions. The one controls the administration and supervision of elementary, the other one that of the secondary schools.

Rural schools have co-education as a matter of necessity and economy, but in the cities there are separate schools for boys and for girls. The city schools are divided into folk schools (charging no tuition fees), middle schools (charging nominal fees), and higher schools (charging higher tuition fees). Heretofore, all these schools had elementary and secondary grades within the same institution; but the primary grades of the middle and higher schools have now disappeared in favor of the unification plan which serves to eliminate the cleavage created by social and class distinctions, and the elementary education or "Grundschule" is now obtained in the primary grades of the folk schools.

The folk schools have grades 1 to 8, whereas the middle schools, since June 1, 1925, have grades 5 to 10; the reform Gymnasium has grades 7 to 12. A pupil may therefore proceed through all three schools in the following way: grades 1 to 4 in folk school, grades 5 and 6 in middle school, and grades 7 to 12 in reform Gymnasium. As grades

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* In association with this article on "Recent and Pending Changes in German Schools," the reader will find an article by Mr. van Orden in the October, 1926, number of The Quarterly on "Re-organization of the German Schools," which was intended to convey a general impression of outstanding reforms effected in the German school system.—EDITOR'S NOTE.

1 to 6 furnish the fundamental training for all schools of secondary character, these elementary grades are designated as "Grundschul-Bildung," while grades 7, 8 and 9 are known as "Hauptschul-Bildung" because of the main schooling received here by those who must leave at the age of 15. However, in some cities there remains from the old custom as a medium of transition to the new age the Gymnasium with the nine upper grades (the former twelve-graded school minus the three primary years), i. e., grades 4 to 12 or ages 9 to 18; these have now become (ruling of March 12, 1924) grades 5 to 13 or ages 10 to 19, and the Grundschule in this instance is furnished by grades 1 to 4 of the folk school. At once we realize that the age of final graduation from the Gymnasium is postponed by one year. However, a gifted child will be allowed to skip one year of the Grundschul education (either grade 2 or 3); this is a definite ruling which favors the exceptionally bright-minded pupils. Such omission of a grade is termed "Springen" (skipping), and this "Springen" may be permitted once again in the junior high grades of the secondary school if it appears justified in the opinion of the several teachers concerned. A well nigh complete articulation between Grundschule and higher schools has been achieved in spite of the short time which has expired since the reorganization of the schools was begun.

Secondary School Procedure. It was mentioned that co-education does not exist in city schools; to this rule has now appeared the exception, e.g., university and Aufbau-Schule. This latter institution gives the brighter children of the folk and middle schools a fair chance to secure academic training which in bygone times was not very well possible because of social classification. According to regulations (Ministerial-Erlasz of February 17 and April 21, 1925) co-education in the Aufbau-Schule is permissive by reason of local conditions; more details are given in a following paragraph. The higher schools for boys, e.g., Gymnasium, Real-Gymnasium and Ober-Realschule, formerly had a twelve-grade course, to wit, 3 primary, 3 grammar, 3 junior high and 3 senior high grades. The three primary are abolished; the next three grammar grades, to wit Sexta, Quinta and Quarta, are also slated for elimination because of the postponement of Latin until Unter Tertia (7th grade) and of Greek until Unter Sekunda (9th grade), Reform-Gymnasium. These latter changes are made very slowly and reluctantly due to the opposition which is manifested by the old guard of aristocratic exclusiveness; and to the same door is laid the charge that filibustering tactics in the Reichstag have thus far prevented the enactment of the long desired Reichs-Schul-Gesetz. After all, there is to remain in the higher schools nothing but the combined junior and senior grades, and the vacated classrooms are refurnished to accommodate added parallel classes of the upper grades.

The Gymnasium offers the classical course with Latin, Greek and modern languages; the Real-Gymnasium omits Greek, the Ober-Realschule omits Latin and Greek, while compensation for such omissions is obtained by extensions in other subjects. The junior high grades of these

institutions are still known as Pro-Gymnasium, Real-Pro-Gymnasium and Realschule, ending with promotion from Unter Sekunda. The successful completion of the senior high division of these schools and of the Aufbauschule is called the "Abiturium" examination which admits to the university. By a ruling (February 18, 1922) the Abiturium privilege has been extended to the "Oberschule" which is a collective name; all industrial and vocational schools have now the standing of secondary schools, and their graduates may continue for further studies to the universities. Such schools are, for instance, Landwirtschaftliche Hochschule (agriculture), Berg-Akademie (mining), Handels-Hochschule (commerce), Forst-Akademie (forestry), Navigations-Schule (navigation), Technische Hochschule (polytechnic high school). The latest development, the Aufbauschule, permits children of sufficient intelligence and capacity to transfer at the end of the seventh or of the eighth grade by means of a test examination (Aufnahme-Prüfung) to undertake a six-year study without repeating grades.

Articulation, Courses, and Social Aspects. The articulation of all these secondary schools with the universities, as may be readily seen, is as varied as the schools differ from one another. The Gymnasium with its classical course admits to studies in any of the faculties, and most students decide for the high school profession or the ministry. Real-Gymnasium admits to medicine and law; Ober-Realschule to commercial, or political sciences, or technology; Aufbauschule to all faculties except the ministry; this exception may be overcome by passing a supplementary examination in Greek as provided in the ruling of February 2, 1917.

Each of these secondary schools offers a definite curriculum, and it is at once seen that the student having commenced and proceeded in one will experience considerable difficulties to transfer to another. Let us compare the classical course of the Gymnasium with the technical course of the Ober-Realschule (the modern language-science course of the Real-Gymnasium presents slightly less difficulties). The striking characteristics of the curricula offered are the early beginnings of modern languages and the large allotments of time given to them as well as the important place given to religion. A pupil who enters the Ober-Realschule at 12 and continues there for two years will have credits in excess of those required in the Gymnasium in history, mathematics, German, English or French or Spanish, but he will be deficient in Latin. As great difficulty is experienced to make up a two years deficiency in Latin the student would be practically unable to change to a Gymnasium. A similar experience might be contemplated vice versa.

The varying needs and demands for secondary education are met through the organization of separate schools for each of the various departments as will be seen from the specifications mentioned at the end of the previous paragraph. The student selects that type of school which will best suit his inclination and capacity, continues in such school till he graduates, and may enroll for further studies at any university.

Extensive additions to the higher education for girls are more of recent date. The program of studies in the Höhere Mädchenschule of today is similar to that in the schools for boys in Gymnasium and Ober-Realschule. Girls may also pass supplementary examinations in Latin or in Greek to advance their standing (ruling of February 2, 1917). The rules which govern the Aufbauschul procedure have established some sort of permissive co-education by means of reciprocation. The ruling of March 6, 1922, provides that such schools shall be organized in localities having as yet none of the higher institutions. Ruling of March 29, same year, demands that in localities having Aufbauschule for boys, girls may be admitted, while the ruling of February 17, 1925, establishes the same vice versa, that in localities with Aufbauschule for girls, boys may be admitted.

The former teacher training schools for a three year preparation plus a three year seminar course were abolished in favor of the Aufbauschule; this change has affected boys' and girls' institutions alike. Another significant ruling (September 19, 1919) extends the privilege for supplementary studies at the university to male and female graduates of the former teacher seminaries for six semesters in philosophy, provided they have had at least two years teaching experience. For immatriculation they are required to file their seminary completion certificate plus evidence of two practice years. The names "Lyzeum" and "Oberlyzeum" appear to be retained for the new arrangement designated as the "Höhere Mädchenschule." Girls are permitted to study theology, but are excluded from the ministry and from the teaching profession in the middle and higher schools for boys.

Intensive Teacher Training. Teachers in the secondary schools for girls are both male and female, according to the nature of subjects taught, but the male contingent is predominant. The new turn of events requires that all members of the teaching profession, elementary as well as secondary, must have had academic training. One facility for the realization of this requirement is the ruling of September 19, 1919, mentioned in the previous paragraph.

Teachers for rural schools will be recruited from Aufbauschul graduates, but all others are obliged to undertake a four semester study at a teacher academy established in connection with some of the universities and conclude their training in the same manner as those proceeding through Gymnasium and university by serving two years in practice before they are permitted to make their "Staats-Examen." This is a civil service examination which gives the successful candidate a secondary credential holding good for lifetime. With such a credential the candidate is eligible all over the country; and furthermore, the centralization of control is serving the various candidates with "Lehrauftrag" (notification) to proceed for certification to school so-and-so in city so-and-so, wherever the occasion has turned up.

Some idea of the requirements for the secondary teaching profession is readily gained by quoting specializations from the "Prüfungs-Ordnung für das Lehramt an höheren Schulen" of July 28, 1917:

Pflichtfach (compulsory) for all is philosophy; Zusatzfach (optional) is either "Philosophische Propädeutik" or pedagogy. The details in philosophy as given in section 9 of the ruling are: (a) Written examination; candidate must show how far he (or she) is able to render judgment of philosophic questions as outlined under the specifications for oral examination, and whether he is capable to express his thoughts clearly and consequently. (b) Oral examination; candidate is expected to be familiar with the fundamental questions of psychology and ethics, in particular with those concerning the age of adolescence and, therefore, of importance for the future educator and teacher, also with the fundamental questions of logic and reason; furthermore, with some of the important writings of an acknowledged philosophic authority in line with candidate's special subjects, or with an important group of philosophic problems connected with candidate's studies of his special subjects, or with the philosophy of pedagogy, and to show his appreciation of meaning and significance of the material studied within the history of philosophy; that is to say, what and how much did it mean as a part of the development in the history of philosophy; candidate must be able to express his thoughts clearly by concentrated recital.

The details for "Philosophische Propädeutik," section 24 of the ruling, are:

Written and oral; candidate must have thoroughgoing knowledge of one of the principal systems of philosophy (the one of which he has made a study) and its position and reach within the history of philosophy; must show comprehension for the historic development of philosophic problems; familiarity with questions of logic and principles of reason by special consideration of the methods of instruction; knowledge of the more important results of psychology, especially such investigations as are closely related to training and education (e. g., philosophy of religion, of language, of history, of art, of mathematics, of physical or of biological sciences).

Requirements in Pedagogy (section 25 of the ruling):

Comprehension of the conception of educational ideals and their connection with general logic, as justified by the progressive development of educational and cultural standards, especially from the beginning of the Reformation down to the present time; familiarity with the works of one outstanding pedagogic authority, or with the formation of a certain pedagogic problem from the history of pedagogy, and also with the present organization of the national educational functions, to give a review of school legislation, statutory and constitutional school law; knowledge of new endeavors in the line of social and citizenship education; recognition of the philosophic fundamentals of pedagogy and how they branch out into psychology and ethics; familiarity with the most important problems of general educational science and of general educational principles in consideration of modern tendencies; appreciation for the problems which arise during the age of adolescence, based upon scientific psychology; realization of ways and means by which such appreciation may be intensified through the constant routine of work with adolescents and through appropriate discerning methods (e. g., systematic observations, experiments). Within the reaches of the subject matter mentioned candidate must be able to point out such situations which are closely interrelated with his principal subjects of study and with the pedagogic duties which his future position demands of him.

In considering these detailed requirements we are at once obliged to acknowledge that the training of secondary teachers is extraordinarily intensive, and for this reason the social standing of the secondary teacher in Germany is that of a well disciplined and highly trained government official, a prestige bestowed by the dignity of the profession.

Relation of Schools to Society and Civil Service. Regarding the relationship between the higher schools and the social organization of today, certain characteristics may be singled out. We recognize

1. That the organization of the schools and the standardization of their work is controlled through a highly centralized administration;

2. That the old traditional lines of social and class distinctions are gradually disappearing;

3. That there are still powerful influences at work to postpone the ultimate elimination of grades 4, 5 and 6 from the Gymnasium and thereby retard the process of unification;

4. That the former prejudiced attitude toward higher education for girls has been relegated to history;

5. That the higher schools are closely connected with the social and industrial structure; the most striking illustration is furnished by the regulation that every phase of civil service depends upon a promotion certificate from some grade of the Gymnasium or Realgymnasium, or a completion certificate of any one of the several higher schools referred to. The majority of all Gymnasia are consolidated with a Realgymnasium in one and the same building; such institution is designated as "Humanistisches Gymnasium" and wields considerable influence.

The one-year military privilege has joined the relics of past history, but the Unter-Sekunda promotion certificate still holds its former prestige in relation to all civil and many private and mercantile service positions.

The costs of education have increased in ratio as the purchasing power of monetary standards has depreciated. It costs the parents approximately 2,000 marks ($500) in tuition fees till their boy graduates from the Gymnasium (provided he does not repeat grades), and it requires an almost equal amount again to study six semesters at the university. No figures have been at hand as to the expenses required in connection with the Aufbauschul course, but suffice it to mention that the cost total would be less than one-half of the above amount; moreover, there are government scholarships as well as private scholarship funds available for the needy. There are no scholarships any more for the Gymnasia. Certain scholarships obtainable at the universities are known as "Stipendia." The time needed to pass through Gymnasium and university in order to reach the Staats-Examen is 17 (6 plus 6 plus 3 plus 2) years; and since Easter 1925, the other way through Aufbauschule and Akademie takes also (7 plus 6 plus 2 plus 2) 17 years.

Secondary Education in America and Germany. The average graduate of an American high school is of about the same age as the average graduate of a German Gymnasium, but the latter is further along in his studies and, therefore, better prepared for academic work. The cause is found in the custom that secondary education in Germany begins earlier than here; modern languages are offered in the fourth grade while the fifth and sixth grades gradually broaden the scope by extensions, so that

with grade 7 in the several higher schools an elaborate secondary program can begin. As each of the schools has a definite curriculum the students remain in the class room but the teachers are changing at the end of the hour; the various subjects are taught by highly trained specialists. Therefore, it is not surprising that the students are exceptionally well prepared for studies at the university.

The German student selects from the diverse types that school which seems best adapted to his needs, while the American student may select in any high school the courses he believes to suit his abilities; in short, the German high schools offer a fixed curriculum and the American schools a flexibility of courses. The German student of today selects his secondary school at the age of 12 (formerly at that of 9); until recently, the American student began secondary education suddenly and abruptly at the age of 14; today he also begins at the age of 12. Better results in favor of the American high school graduate are thus assured; none the less we are bound to concede that German education is more thorough and systematic and, therefore, more intensive. The German student is obliged to spend considerable time for preparation by studies at home.

The facilities for training secondary teachers in America have been improved and higher standards are continually being formulated; so we realize that the American high school teacher may soon assume a more favorable position for comparison with the German scholar. The fundaemntal differences in social ideals in the two countries are not as pronounced anymore, and they are noticeably on the way to disappear by elimination through educational changes.

Other Notable Features

Reviewing the outstanding improvements accomplished within the German school system, with still several additional changes of far reaching effect pending, certain interesting features deserve perhaps more than a passing mention to say the least. Male teachers predominate; in schools for boys there are male teachers exclusively while in girls' schools they are in the majority.

The work of any school is laid out by years and in detailed apportionment for every day of the school year with allowances provided for to cover the time omitted on account of extra holidays. The quantity of subject matter for a school day is known as the "Pensum" for that particular day, and the list containing all the apportionments for the school year is known as the "Lehrplan" for that particular grade.

The teaching of modern languages by means of full and motivated experience with the foreign tongue is accomplished through the employment of foreign born language teachers wherever possible to secure such teachers.

The German teacher devotes his ability and ambition to strive for excellent results; the tenure is for life, but at the age of 65 the teacher retires upon a pension amounting to three-fourths of his last year's salary.

Finally, it must be mentioned that successful attempts have been made to solve a vexatious problem with which we have also grappled, that of repeating grades. Classroom teachers began to advance with their classes through two or three successive grades so that, for instance, pupils at the end of the sixth grade have had only two classroom teachers. Such procedure has developed the ambition to see to it that no one is left behind to repeat a grade, and has improved the efficiency of the teacher inasmuch as extending the teacher's range over the subject matter for several years. The problem of the repeater presents more difficulties in the junior high grades of the secondary schools with the one exception of the Aufbauschule. This institution is still in the process of formation and, therefore, in the official communications and rulings always referred to as "Aufbauschule in Entwickelung," because all six grades will be completely assembled by Easter 1928. Thus far the experience has brought out that the entrance examination to these schools usually passes the exceptionally bright and a majority of the average minded students, and thereby excludes from the Aufbauschule those whose intelligence and capacity is deemed insufficient to secure success without retardation.

. . . The points of undesirability as seen from the American view point were those forces which developed segregation by class distinctions and socially artificial lines of division and were in most instances due to the possession of wealth. All such class distinctions will soon be things of the past because the progressive work for democratization of education has become the watchword of the day.

In submitting this report on an experiment in a reading course in modern literature in the Fresno High School, Miss Rabourn said: "The experiment in Senior English which we made the past year had been in our minds for some time, but it takes courage to break away from tradition in English teaching. I think the results will encourage other English teachers to attempt such a course. The fact that we tried to fit the course to the boys and the girls and not the boys and the girls to the course ought to be of interest to superintendents and principals in curriculum building."—EDITOR'S NOTE.

A READING COURSE IN MODERN LITERATURE

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THIS article is an attempt to evaluate a course in modern literature in terms of the teachers who taught the classes and of the pupils who took the course. In addition to the opinions of the teachers, the reactions, criticisms, and suggestions of the pupils were sought as a means of measuring results.

The course in senior English in the Fresno High School, although it has been elective and has included works in modern drama, poetry, and fiction, has lacked interest for more than half of the pupils and has been above the level of their comprehension. Pupils who have done good work in mathematics, science, and other subjects felt that senior English did not give them, as one boy expressed it, "the keen enjoyment that other subjects have," and it has offered little that touched the interests of present day life. Whether teachers have changed in their attitude towards the classics or whether it is more difficult to "get across" to present day pupils what formerly they took without protest, is not quite evident, but the results achieved have not been satisfactory either to the teachers or to the pupils.

Interest and Pleasure as Test of Literature. Realizing that senior English must compete with elective courses in social science, science, and mathematics, the committee appointed to revise the English work in the twelfth year decided to follow an entirely new plan for the second term. If the results of the experiment satisfied both teachers and pupils, the course for the first term would also be revised, by dropping the less interesting classics and retaining only those which make the strongest emotional and literary appeal. In revising the whole course in senior English, the committee tried to forget the traditional method of teaching, to remain indifferent to the approval of college entrance boards, and to consider the interests and pleasure of high school boys and girls, not of ten years ago or even of five years ago, but of the year 1927.

Teacher Assumes Role of Director Rather Than Dictator. To make a course in classics is difficult. The traditions that certain works of

literature are good for people and that all ought, at least, to know about them, is very strong. It is hard, therefore, to remain insensible to one's previous training. Not only teachers, but even pupils, while expressing freely their dislike for some of the classics, are unwilling to admit that they have little value, and they hesitate to omit them from a course in English literature. But to make a course in modern masterpieces is even more difficult since there is no fixed standard for present day literature. The committee were faced with the question, "How far is the teacher justified in imposing her opinions, taste, and appreciation upon the pupils?" Considering the differences in opinions, and standards, not only of teachers who have similar interests, but of the public with varied literary interests, the committee thought they could best overcome this difficulty by assuming the role of directors rather than that of dictators. They would open up fields to be explored and permit the pupils to do the exploring. This new role of director instead of dictator which was assumed by the teachers in the course in modern literature is undoubtedly responsible in large part for the gratifying success with these classes.

Choice Extended Over Wide Range of Literature. The pupils were given a long list of suggested readings in contemporary literature, principally by American and British authors. Individual preferences were encouraged and individual opinions considered. In this way, a happy relation between pupils and teachers was established in the very beginning. Van Doren's *American and British Literature Since 1890* was used as an additional guide, and students were encouraged to subscribe to the New York *Times Book Review.*

This course was to be one of extensive reading based upon the principle of freedom of choice over a wide range of modern literature. It offered an excellent test of the tolerance of the teachers and challenged their ability to guide the pupils in a wise selection and an appreciation of books of more than trivial significance.

Literary Taste Formed Through Voluntary Reading. This course also offered a challenge to the pupil in that he was put upon his mettle to improve his taste in reading. To a great extent the tastes of pupils are formed and their likes and dislikes are influenced by their voluntary reading, rather than by assigned reading and class work. To keep boys and girls from reading books and magazines that have a morbid, vulgarizing, and unwholesome effect is largely, therefore, a process of substitution and a change of attitude toward that which is lovely and desirable. Considering the literature the pupils are reading at their own pleasure, their interest in actualities and their quick response, the committee planned the work with emphasis upon the following objectives: to teach pupils to enjoy reading, to appeal to their sympathies and human interests, to develop an appreciation for the best of modern literature, and to encourage individual opinions and critical analysis. The committee hoped that a course so designed would make easy and pleasant this process of the substitution of the beautiful and the significant for the ugly and trivial.

Although the teachers had the objectives clearly in mind, they began the new course with no fixed plans. They were free to work out details

of methods with the pupils, and to make changes as they were needed. With the experience gained from the first trial, with more assurance of the worthwhileness of the course, and with the encouragement of the pupils, the teachers began the second trial with a good deal of confidence, and finished the experiment with a feeling of pleasure and satisfaction in having developed a course in English which was actually meeting the needs and the desires of present-day students and which was bringing from the students a whole-hearted and enthusiastic response.

Opinions of Pupils Valuable. Near the close of the two semesters, a questionnaire was given to the 104 pupils in the classes. They were asked to consider the questions carefully and to be honest in their answers, since the purpose of the questionnaire was to help the teachers in evaluating the course and in making modifications for next year. It was given without warning and was undertaken by the pupils in a general spirit of adventure and good-will. The direct answers and frank comments and suggestions seem valuable enough to justify the teachers in assuming that the interests and opinions of pupils should be considered in making a course in current literature. Some of the more signficant results follow.

The majority of the students like modern poetry better than the older poetry. The vote on this point was 51 for the modern and 38 for the old. Of these 38 nearly all felt that the older poetry offered an escape to beauty and romance not obtainable in any other way.

Pupils Prefer the Novel. When asked to state their preference in reading matter, the vote was as follows: novel, 82; drama, 21; short story, 23; poetry, 15; books on science and invention, 6; biography, 6. The pupils have a decided preference for the novel. It is evidently the most vivid form to them, because it has a gradual development like life. The unfolding of the story is a process that is pleasurable, if vicariously experienced by the young reader, inexperienced as he may be. The drama and the short story in their more highly technical forms are likely to confuse the mind and to prevent sustained interest.

Course Prepares Student for Use of Leisure. That the course is an ideal one to prepare the student for a worthy use of leisure is brought out by the response to the following question:

"In which of the following respects has senior English been of service to you? (underline several if necessary).

"1. Understanding of where to find good books—56.
"2. Appreciation of good books—79.
"3. Understanding of people and sympathy with them—27.
"4. Originality and independence of judgment—42.
"5. Better standards of conduct—2.
"6. Knowledge of current thoughts—42.
"7. Cultivation of tolerant and broad-minded spirit—38.
"8. Pleasant recreation and entertainment—55.
"9. Ability to criticize—3."

Student Opinion on Value of Course

On the question, "Do you think that individual preferences should be encouraged as they are in this course?" the answers were as follows: Yes, 80; no, 17. The encouraging of individual preferences was one of the aims of the course. It was designed to encourage the pupil to read widely, but with discrimination. That the modern English teacher has to have the courage of her convictions in breaking away from the older method is shown by the fact that seventeen pupils expressed themselves in favor of the older method.

When asked to underline the course which they considered of more importance to them, students voted as follows: For the senior course in modern literature, 78; for the senior course in classics, 13.

On the question, "How does the course in modern literature compare with other English courses with respect to interest, enjoyment, and value received," the results were as follows: More interesting, 78; more enjoyment, 61. In regard to value received from the course the following comments of students are interesting: "One learns how to keep up on the latest topics of the day, how to choose the best books and how to criticize them." Practically this same statement occurred in ten student papers. "Valuable because all well-read people keep up with modern books." "I have read more books this semester that have helped me socially." The above two statements were found re-stated in four different papers. "It gives me a splendid outlook on our modern literature, something that few people have." "It concerns our own environment." "It has been of great value to me because I used to hate to read. Now I love it. It took English 8 to arouse my interest." "We receive more value because we become broadminded enough to see through better books." "I have thought more seriously of life and learned to criticize authors and characters." "I believe the value received in English 8 is remarkable. It has already changed my ideals and I believe for the best." "I feel that I am receiving greater value from this course than from any other. I am able to talk about the work done in this class."

When asked to compare the modern literature course not only with other courses in English, but also with all subjects in the school, students voted as follows: Very low, 0; low, 1; medium, 13; high, 38; very high, 52.

On Van Doren's *American and British Literature Since 1890* which supplied critical and biographical material for the course, the students expressed themselves as follows:

"Do you like Van Doren's critical summaries?" Yes, 94; no, 10.

"Are you guided by them (54) or do you wish to feel free to make your own?" (39)

"Do you think Van Doren gives sufficient biographical material for the purposes of this course?" Yes, 86; no, 17.

This book evidently proved a popular textbook. Students were satisfied generally with the critical estimates and with the absence of irrelevant detail. Very little biographical material appears in this book. Students

wish to have instead illuminating comments on a man's work, and revelations of his character and philosophy as displayed in his works. They do not care for details and facts that do not prove significant in their study and do not aid them to sympathize and appreciate more deeply. The old idea that students should know that Chaucer's father was a vintner, for example, seems to be losing prestige with them.

On the question of the value of reading a weekly book review, such as the New York *Times Book Review,* the vote was as follows: Yes, 80; no, 23.

On the value of the keeping of note books the results were: Very low, 28; low, 15; medium, 29; high, 17; very high, 16.

On the value placed on the writing of critical essays the results were: Very low, 21; low, 23; medium, 35; high, 21; very high, 7.

Grading, the bugbear of the English teacher, was likewise voted on by the students in these classes with the following results: The grade should depend upon

1. The amount the student has read, 31.
2. The fineness of his taste and the originality of his observations, 54.
3. The understanding of the content, 15.
4. A combination of the above, 7.

Further suggestions for grading were given by individual students, among which are the following: "A student's grade should depend upon his attitude toward his work and the interest he takes in it." "Grade according to value received from the course and the improvement in taste, because pupils are differently equipped for the course at the beginning."

More Class Discussion Favored. The most frequent suggestion for improvement of the course was more and better class discussion. Spirited class discussions were felt to be a departure in many classrooms. Pupils realize the value of class participation. This is seen clearly by their answers and comments. The feeling is that democracy should prevail in the classroom and that all pupils should take part in the discussion. The course should evidently be noteworthy for a free exchange of ideas, because it is designed for the most mature minds in the school, minds which are past the memory and rote stage and are ready to formulate judgments.

Literary Criteria Demanded. Another suggestion which students made for improving the course was this very pertinent one, "We need more information as to what makes a good book." This is pertinent because a teacher should give a measure for technical excellence, spiritual significance and universal appeal. This is a difficult matter, however, because the test is an intangible one, and is more often unconsciously applied by the individual himself. Tests are useless, but a cultivation of taste is possible, till only the best books suffice to satisfy new demands.

The great crime committed by the reading public today is indulging in futile, lazy reading of carelessly or viciously written books. We cannot take these books away from high school students and not leave a lack that must somehow be supplied. Students will read modern books, and so, to satisfy this need, we established a course in modern literature that encourages the reading of modern books that were written by masters at

their craft, written sincerely, nobly, or with sophisticated lightness. We offer these books instead of the offensive and vulgar, hoping to bring about a type of mind that is sensitive, unspoiled, open to impressions, and able to assimilate these impressions and make them ennobling. This course in modern literature is really a process of substitution; that is, it takes away questionable tastes and ideals and offers instead the sesame to all kings' treasuries.

Without the training from such a course, pupils will be more content with the commonplace until they forget the indifferent elusiveness of all art. They will be content with Harold Bell Wright and Jean Stratton Porter, whose books are in themselves so inoffensive that the pupil feels they must be good. They lack the virility, the nervous brevity of a true work of art, but unless a pupils' taste is trained, he will be content with such commonplaces.

HIGH SCHOOL LIBRARIES IN CALIFORNIA

FAITH E. SMITH
Librarian, Lange Library of Education, University of California

EARLY in 1927, Mr. Will C. Wood, then State Superintendent of Public Instruction, sent to all the principals of senior and junior high schools questionnaires on senior and junior high school libraries. He introduced the questionnaire with the following note:

> I am very much interested in the improvement of high school libraries. In recent years great progress in the organization and maintenance of high school libraries has been made. However, I feel that the state office can be of considerable assistance in making the library a more efficient educational agency. In order that we may be of greater service, it is necessary that we have full information concerning high school libraries and their organization. I am therefore sending out this request for information concerning high school libraries. Will you give the information indicated below or have your librarian fill out the questionnaire and return to me as soon as possible?

Following are the questions asked concerning senior high school libraries:

Name and location of school (city or town).
Actual enrollment of school on date of this report.
Does your school have a library (a separate room equipped with tables, chairs, and book collection)?
Is the library used also as a study hall?
What is the seating capacity?
Name of librarian, if any.
Academic degree of librarian.
Amount of library training?
Academic degrees of assistants, if any.
Library training of assistants.
Is the library administered by a teacher who has had no library experience?
Does she give full time to the library? Does she teach part of the time? If so, how much time is given to the library?

Is instruction given in the use of books and the library? How many lessons? In what years?
Is there a class in library work? Is graduation credit given? How much credit for five periods per week?
What is the annual appropriation for books and periodicals?
What proportion is spent for periodicals?
Approximate number of bound volumes in the library.
How many magazines?
Is there a collection of pamphlets? Of mounted pictures?
Does the school have service from the county library system? If so, to what extent?
Is there a fund or other provision for additional equipment as the library grows?
Does the library serve a night school?
Are there junior college classes? Junior high school classes?
What provision is made for these?
If your school has no library, how are students furnished with library facilities for reference? For home reading?
Other information.

From the 355 senior high schools listed in the *Directory of Secondary Schools in California, 1926-27,* 268 replies were received. Of the 116 junior high schools, 84 replied. Of those from which no information came, 12 have an enrollment of less than fifty, too small to have an organized library.

The reports have been summarized according to the *Report of the Committee on Library Organization and Equipment,* of the National Education Association, and of the North Central Association of Colleges and Secondary Schools, published in 1920. Mr. C. C. Certain was chairman of this committee, and the report has become known as the Certain Report. Some of the requirements stipulated by Mr. Certain cannot be measured by statistics, and some were not reported, so information is given only on those items for which we have statistics.

Qualifications of High School Librarians

The School Law of California, 1925 (Political Code, 1775, sec. 6), states:

> *No librarian shall be employed for more than two hours a day in any high school,* unless such librarian holds a high school certificate or a special teachers' certificate in library craft, technique and use, of secondary grade, granted in accordance with the provisions of this code.

To obtain a high school certificate, one must have a Bachelor's degree from a standard college or university, and one must have completed a full year of post graduate work, at least one-half of which has been completed in one or more of the institutions whose schools or colleges of education have been accredited by the State Board of Education.

A library craft certificate of secondary school grade requires graduation from a standard college or university, or three years of such collegiate training, and two years of successful experience as a public school librarian, and at least one year of special training at an approved library school.

In California high schools from which reports have been received, there are 82 full-time librarians. Of these, forty have a Bachelor's degree and at least one year of library training; twenty have had one year of library training plus experience, but no Bachelor's degree; eight have a

Bachelor's degree and Summer School training in library work; seven have a Bachelor's degree with library experience, but no training; four have Bachelor's degree, but no training or experience; one holds a general secondary certificate with one semester's experience, but no training; one has had experience and Summer School training, but no degree; one holds her position without training or a college education.

The Use of County Library Service by High Schools in California

The School Law of California (Political Code, Sec. 1742), states:

> The high school board of any school district lying wholly or partly within a county maintaining a county free library shall have power to enter into a contract or agreement with the board of supervisors of said county, whereby said high school district may secure the advantages of said county free library upon such terms and conditions as may be fixed in said contract or agreement.

Act 2750 states:

> The board of supervisors shall have power to accept on behalf of the county free library, all books and other property of school libraries and of the teachers' library as provided by sections 1,565, 1,715 and 1,716 of the Political Code, and to manage and maintain the same as a part of the county free library.

Small high schools without a full-time librarian or a trained librarian may find this an opportunity, not only for securing the needed books, but having them catalogued and classified. Pictures, lantern slides and other visual material are secured through county libraries. Some high schools report that the county librarian gives instruction in the use of books to the high school students.

The California State Library has prepared a bulletin on *California County Free Library Service to Schools,* which may be had for the asking. This tells how to secure the service, and the benefit to be gained.

In 1926 over 2,400 school districts (including elementary and high school) had joined county libraries. There are 44 counties in California which have county free libraries. Eighty of the high schools replying to the questionnaires are using county library service, but there are 78 high schools without trained librarians, either having no librarian, or having a teacher who gives only a small portion of her time to the library, which are not taking advantage of the privilege of being allied to a county library.

High Schools Having an Enrollment of Less Than 200

165 IN THE STATE—119 REPORTS RECEIVED

Standards Set by Mr. Certain's Report	*Conditions in California*
Separate library room.	67 have separate rooms. Some have equipped the study hall, or the English class or auditorium with shelving for books.
Full time librarian with one year library school training.	One in this group.
Teacher-librarians with at least Summer School library training.	65 teacher librarians, of whom 5 have had one year of library training; 4 have had a Summer School or short course; 2 had had some library experience; 50 have Bachelor's degrees. Other schools have indicated no one person in charge of the library.

Book collection of ten volumes per student.	*64 have 10 or more volumes per pupil. *33 have between 5 and 10 volumes per pupil.
Instruction in the use of books.	28 have formal classes, or instruction in English classes or in general assembly. 8 have classes in library work for which graduation credit is given.
Appropriation $1.00 per pupil.	*89 give an appropriation amounting to more than $1.00.

*Reports do not state whether these include textbooks.

High Schools Having an Enrollment Between 200 and 500

90 IN THE STATE—70 REPORTS RECEIVED

Standards Set by Mr. Certain's Report	*Conditions in California High Schools*
Separate library rooms.	53 have a separate room, though some are used as study hall.
Seating capacity 30 to 50.	4 have seating capacity of 100; 5 of 70; 12 of 35; 14 of 20.
Full time librarian with training in approved library schools with a minimum of six weeks, plus experience.	14 high schools have full time librarian, 13 of whom have a Bachelor's degree, and 12 have had library school training. 51 have teacher librarians giving only part time. 5 have no one designated as in charge of the library.
Book collection of 2,000 to 3,000 volumes.	16 report more than 3,000, though textbooks may have been included in the reports. 16 report between 2,000 and 3,000. 27 report between 1,000 and 2,000.
Cooperation with local library.	15 are branches of the county library. 15 others borrow books from the county and city library. 1 borrows from the State library.
Instruction in the use of books.	25 give instruction in the use of books. 21 have classes in library work for which credit for graduation is given in 20 high schools.
Annual appropriation for books $1.00 per pupil.	45 have at least $1.00 per pupil. Some have considerably more, but part of this may have been spent for textbooks.

High Schools Having an Enrollment Between 500 and 1,000

47 IN THE STATE—40 REPORTS RECEIVED

Standards Set by Mr. Certain's Report	*Conditions in California High Schools*
Separate library room.	39 have a separate room.
Seating capacity 40 to 50.	7 have seating capacity of 100; 11 of 70; 16 of 35.
Full time librarians where enrollment is over 800.	31 have full time librarians. 8 have teacher-librarians giving only

	part time.
	1 has no librarian.
Librarian should be a graduate of a full time library school, with two years' experience.	30 have a Bachelor's degree.
	22 have had one full year of library training.
If not a college graduate, she should have four years' library experience.	7 have had Summer School or short courses of training.
	3 teacher-librarians have had no training or experience.
	1 teacher librarian had one year of experience in preparation.
	3 not college graduates had had ten years' of experience.
	1 having had short course, has had ten years' experience.
	1 had two years' experience.
	1 full time had had one year's experience.
Book collection 3,000 to 8,000 volumes.	4 had over 9,000 volumes.
	10 have 5,000 volumes.
	45 have 3,000 volumes.
	4 have 2,000 volumes.
	5 have 1,000 volumes.
	2 have 500 volumes.
Instruction in the use of books.	36 give instruction.
	26 have library work classes, for which graduation credit is given.
Annual appropriation $1.00 per pupil.	11 spend $2.00 per pupil, unless reported appropriations include text books.
	13 spend $1.00 more.
	11 spend less than $1.00.
	5 report no regular appropriation.

High Schools Having an Enrollment Over 1,000

41 IN THE STATE—40 REPORTS RECEIVED

Standards Set by Mr. Certain's Report	*Conditions in California*
Separate library room.	37 or 92% have separate rooms; 8 are used for study halls also.
Full time librarian, with college degree, a year or two years' post graduate library training and one years' experience.	36 or 92% have full time librarians, of whom 20 have a Bachelor's degree; 23 have not had at least one year of library school training; 7 have had Summer School courses; 7 had at least two years' experience.
Full time trained assistant.	14 or 35% have one trained assistant each.
	1 has three trained assistants.
	3 have two trained assistants each.
	6 have clerical assistants.
	1 has a clerk in addition to a trained assistant.
Book collection, minimum of 5,000 to 8,000 volumes.	7 have over 15,000 volumes.
	3 have between 10,000 and 15,000 volumes.
	17 have between 5,000 and 10,000 volumes.

Book appropriation $1.00 per pupil.	13 or 32% spend $1.00 or more per pupil. 10 do not state a definite appropriation. 14 others spent $1,000 a year.
Instruction in the use of books.	30 or 75% have classes in library work, and graduation credit is given in 28.

Junior High School Libraries*

The questionnaire sent to junior high schools was as follows:

Name and location of school (city).
Enrollment of school on date of this report.
Grades in your junior high school.
Does your school have a library (a separate room equipped with tables, chairs, and book collection)?
Is the library used also as a study hall?
What is its seating capacity?
Names of librarians and assistants, if any.
Has the librarian had one full year of library training?
Has she had a summer course or other short course in library training?
Has the librarian been trained as a children's librarian, with a full year course?
Library training of assistants: full year? Short course?
Is the library administered by a teacher who has had no library training or experience?
Does she give full time to the library? Does she teach part of the time? If so, how much time is given to the library?
Is the instruction given in the use of books and library? How many lessons? In what years?
What is the annual appropriation for books and periodicals?
What proportion is spent for periodicals?
Approximate number of bound volumes in the library.
Approximate number of volumes donated.
Is there a collection of clippings and pamphlets? Of mounted pictures?
Does the school have service from the county library system? If so, to what extent?
Is there a fund or other provision for additional equipment as the library grows?
If your school has no library, how are students furnished with library facilities for reference? For home reading?
Other information.

There are 116 junior high schools listed in the *Directory of Secondary Schools in California, 1926-27*. Questionnaires were answered by 84 of these.

In the group of junior high schools having an enrollment of less than 200, nine schools reported. Of these, seven (77 per cent) have a separate library room; only four use the library as a study hall; three have a librarian with special training of library experience; two give instruction in the use of books, and have a picture collection, while three have a pamphlet and clipping file; four (55 per cent) use county library service. The average number of volumes per pupil for the group is 9.6. The standards cannot be rigid in such small schools. Much progress seems to have been made, however.

Thirteen junior high schools of between 200 and 500 reported seven equipped with a separate library room. Of these only two are also used

*Summarized by Miss Leona Merrick, librarian, James A. Foshay Junior High School, Los Angeles.

as study halls; three librarians have had special training. Five schools give training in the use of books while seven have pamphlet files. The average number of volumes per pupil is 8.5. Three schools are affiliated with the county library system.

In the group of junior high schools enrolling from 500 to 1,000 pupils, thirty-three reported. Twenty-eight (85 per cent) have a separate library room; eighteen (55 per cent) have a librarian with special library training and two more have had experience in an organized library; twenty-three (70 per cent) are giving organized lessons in the use of books; twenty-five (76 per cent) have a clipping and pamphlet file, and twenty (60 per cent) have a picture collection.

The average number of volumes per pupil in the group is four, with a variation from two-tenths to fourteen. However, textbooks may be included in some of the figures, so their use is invalidated. Only two schools in this group use county libraries. With an average enrollment of 561 pupils in this group, the average appropriation has been $681.00.

Twenty-nine schools, of more than 1,000 pupils each, answered the questionnaire. The problems of this class of junior high schools concern at present only a comparatively few cities. Only five such schools, outside of San Francisco, Long Beach, Pasadena, San Diego, and Los Angeles, are among those which reported. Twelve of this group are in Los Angeles.

Twenty-seven schools out of twenty-nine have librarians with at least one full year of special library training who devote full time to the work. Oakland furnishes the exception as a definite matter of policy. Only ten librarians, however, have had training as specialized children's librarian.

The average appropriation for books was $1,261.00. Twenty-three (79 per cent) give instruction in the use of books and libraries, and report the use of a picture file. A slightly larger per cent (86 per cent) use a pamphlet and clipping collection. The average number of volumes per pupil is two, with a variation from .8 to 4.1.

The size of the book collection seems to vary with the number of years the library has been organized, rather than showing much correlation with the size of the school. Also it is evident that more volumes per pupil are required in a small school than in a large one.

In the larger schools where the librarian load is heaviest, there is greatest consistency in giving instruction in the use of books and libraries. Perhaps it becomes a necessary economy of effort. A tendency is seen to use a library clerk as assistant to the librarian even in medium-sized schools.

Better standards exist at present in regard to the quality of leadership than in regard to appropriation of funds. Undoubtedly this is wise, but an increased per pupil appropriation might well be a next goal toward which to strive.

It is evident that rapid development is taking place. "New building will be so equipped"; "Plan to organize this form of service"; such phrases as these are frequent. This is a most wholesome state of affairs, and much progress should be forthcoming in the next few years.

THE NEED FOR TERMINAL COURSES IN THE JUNIOR COLLEGE*

NICHOLAS RICCIARDI

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WHAT Is a Terminal Course? A typical case reported by John R. Alltucker, city director of Vocational Education, Vallejo, California, will best serve to indicate what is meant by a terminal course.

Harold is a boy who finished two years of high school. He is seventeen years of age, big, strong, and clean. He is not academically minded. There are seven others in the family. His father is a mechanic who works hard and tries his best to provide for his family. He could not see why Harold should go to high school any longer. He said that Harold wasn't learning anything that would be of any use to him, and he should be at work.

I met the boy one day after school, and he told me what his problem was. I asked him if he thought it would do any good if I talked to his father. He said, "No; not a bit." He told me that his father thought there were too many subjects taught in high school that were of no value to a boy.

I hardly knew what to do about the case. I found that Harold had had some experience in electrical work and liked it. He wanted to continue in that field. So in about a week I got him a place with the Vallejo Light and Power Company. Then I went to his father and put the whole proposition before him. I told him that Harold could spend a half day at electrical work, to get his practical experience on the job, and spend the other half day in school to get instruction in the subjects required for graduation from high school. I told him that Harold would be paid for getting his training on the job and that he would get credits toward graduation in his high school subjects.

Harold's father said to me in astonishment: "Do you mean to say that you have a job for Harold where he can learn a trade and still go to school and be paid at the same time?"

I replied that it was all fixed up and that Harold could start the next morning.

Well, I never hope to receive any more sincere thanks for any piece of service as long as I live. The man was tremendously pleased and grateful.

Harold is getting experience in actually wiring houses and is doing good work in school. His smile, whenever I see him, and the interest and gratitude of his father are compensating returns that build a very definite faith in modern education.

That is a concrete example of a terminal course. It consists of practical work, instruction in technical subjects, and instruction in social studies. A terminal course is one which makes the individual who successfully completes it socially efficient, an intelligent citizen and occupationally competent, in a non-professional or a semi-professional occupation.

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*A paper presented and discussed at a meeting of the Education Committee of the Commonwealth Club of San Francisco, November 9, 1927.

Terminal courses are best suited to the needs of senior high school and junior college students who are not planning to enter higher institutions of learning. They are intended to do for those who enter the non-professional or semi-professional fields what college preparatory and university courses are intended to do for those who enter the professional field. They are intended effectively to democratize education.

Democratization of Education

Terminal courses in the junior college may be regarded as the concrete expression of the democratizing of education beyond the four-year high school. There are certain economic factors which account for the large and increasing number of students who wish to pursue terminal courses beyond the four-year high school.

The United States Department of Labor has made a study of the increase in productivity in eleven industries; namely, wire and steel, boot and shoe, leather and tanning, meat packing, petroleum refining, paper and pulp, cement manufacturing, automobiles, rubber tires, flour milling, and cane sugar refining.

The conclusion of this study, supported by other studies is to the effect that the marked increase in productivity has brought about an increase in real wages, since 1914, of over 134 per cent; and this increase in real wages has made possible higher standards of living which explain very largely the remarkable increase in secondary school enrollment and the vast numbers of students who wish to pursue their education beyond the four-year high school.

Secondary school enrollment in the United States has increased from 202,963 in 1890 to 3,650,903 today. In California the total enrollment in secondary schools in 1890 was less than 6,000; today it is 412,480. This State leads the world with 4½ per cent of its whole population attending high schools.

This remarkable growth in secondary school enrollment and the changing social and economic conditions are the chief reasons for the advocacy of two years of education beyond the senior high school. Definite provision for the extension of secondary education in California is found in the Junior College Act which reads in part as follows: "Junior colleges may be established as a part of the secondary school system of this State."

The secondary school is intended to give concrete expression to democracy in education. Dr. Lange, in his characteristically pointed and analytic way, stated frequently that democracy in education should mean not only equality of educational opportunity, but continuity and completeness of educational opportunity. The new type of secondary school, therefore, should make available to *all* a program of public education characterized by equality, continuity, and completeness of educational opportunity; and the junior college is the most recent vital aspect of the new-type secondary school.

In his stimulating little book entitled, *Education for a Changing Civilization,* Dr. Kilpatrick in discussing and advocating a new philosophy of

education emphasizes the fact that the school should build curricula and use methods which make practicable the democratizing of education through the effective co-ordination of school and community activities. "For the school," says Dr. Kilpatrick, "to continue to lag behind our advancing civilization is most hazardous. The new school must be an essentially different school from the old."

Student Groups in New-Type Secondary School

That leads us to ask this very pertinent question: In what ways must the new-type secondary school be essentially different from the old?

The new-type secondary school should clearly and definitely express itself in three aspects, or three unit-organizations. In each unit-organization may be found three groups of students:

1. The professional group consisting of students who are planning to enter the professions.
2. The undecided group.
3. The non-professional group consisting of those students who are planning to enter gainful employment before or after graduation from the secondary school.

In the junior college the students are usually grouped as follows:

1. High school graduates who have completed their high school subjects with grades required for entrance to higher institutions of learning.

For these students the junior college has established the course known as the junior certificate course.

2. High school graduates who have not received grades in their high school subjects required for entrance to higher institutions of learning.

The students are usually enrolled in the diploma course. Some of them, by making up the credits they lack in certain prescribed subjects, are transferred to the junior certificate course.

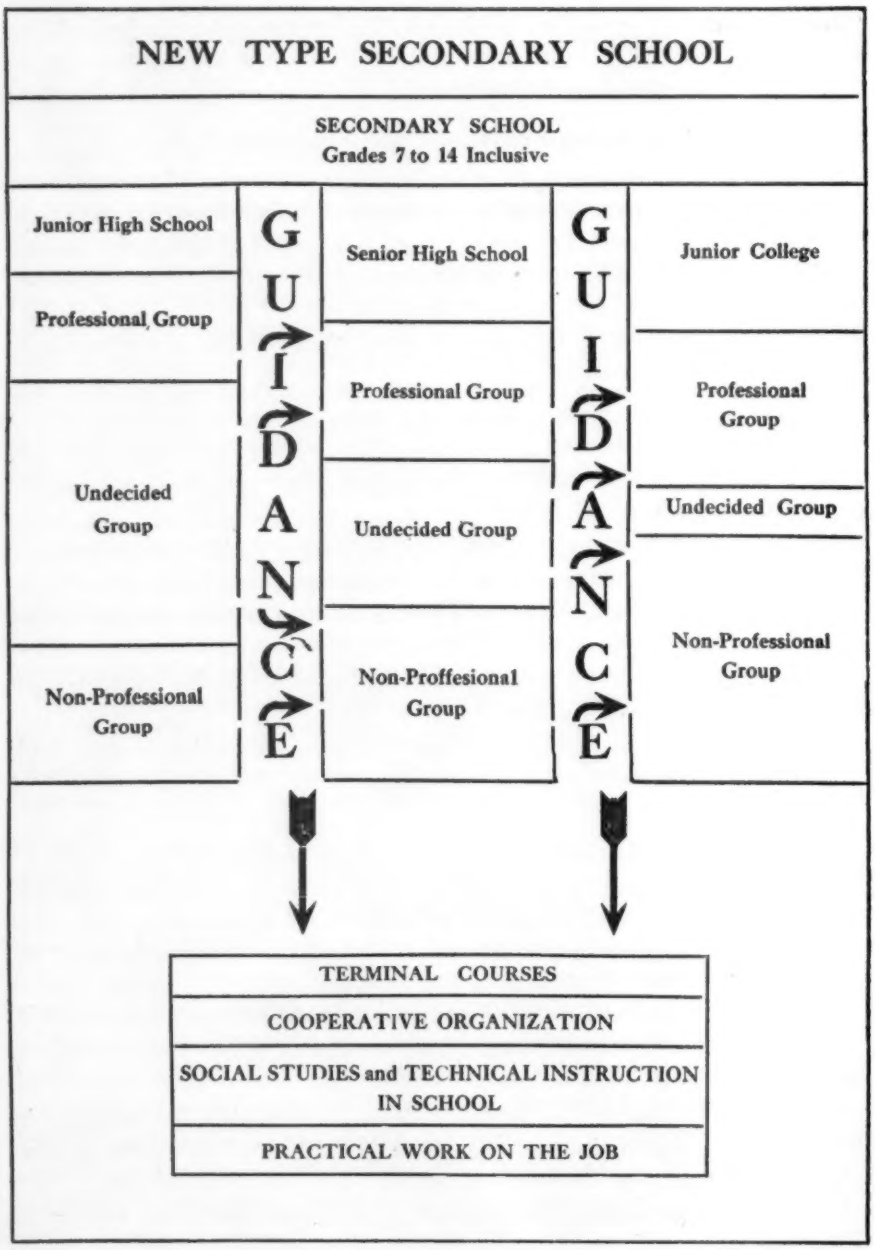
3. Those students who are not high school graduates but who are over eighteen years of age.

These individuals are enrolled in the junior college vocational course.

In addition to the above, some junior colleges have special students in short courses.

Terminal courses in the junior college are intended for students in the diploma course and in the vocational course who will enter gainful employment in non-professional or semi-professional occupations.

The chart appearing on the following page sets forth the aspects or unit-organizations of the new-type secondary school.


NEW TYPE SECONDARY SCHOOL
SECONDARY SCHOOL
Grades 7 to 14 Inclusive
Junior High School
Professional Group
Undecided Group
Non-Professional Group
GUIDANCE
Senior High School
Professional Group
Undecided Group
Non-Proffesional Group
GUIDANCE
Junior College
Professional Group
Undecided Group
Non-Professional Group
TERMINAL COURSES
COOPERATIVE ORGANIZATION
SOCIAL STUDIES and TECHNICAL INSTRUCTION IN SCHOOL
PRACTICAL WORK ON THE JOB

The Terminal Function of the Junior College

Dr. Frank W. Thomas, president of the Fresno State Teachers College, whose doctor's thesis is *A Study of the Functions of the Public Junior College,* writes concerning the terminal function of the junior college as follows:

> "Any thorough going attempt to make the junior college serve the higher educational needs of its community inevitably reveals another function which is coming to be recognized as perhaps the peculiar providence of this institution. This is the providing of terminal courses, usually vocational in character, so that the student may at the end of two years have 'rounded out' his education and be qualified to take up his vocational activities in a competent and well prepared manner."

In the May issue, 1925, of *Teachers College Record,* Dr. Robert J. Leonard, formerly of the University of California, now director of the School of Education of Teachers College, Columbia University, makes this statement:

> "In so far as universities concern themselves with professional education, their efforts will be confined to the higher and highest levels. Those are the permanent university fields. No other institutions can perform these services satisfactorily. And, in so far as junior colleges concern themselves with occupational education, their efforts will be confined to the middle level and, in like manner, this will be their permanent field."

Dr. Leonard D. Koos indicates that the junior college offers a fertile field for developing terminal courses. He says:

> "The hope must rest not in readjustments within colleges and universities of the current type, but in institutions in which the first two college years under consideration are terminal grades. That is to say it rests in the utilization of the junior-college idea. Our assurance that the interests of those who will not or should not go beyond the first and second college years will be better conserved in such an institution, is grounded in the fact that the lower schools with which this work should be associated have already made propitious beginnings towards differentiating work for those who can and should continue their education and for those who cannot and should not continue it."

The fact that we now have in California approximately 10,000 junior college students and that approximately 60 per cent of them can best be trained through terminal courses is evidence of the need for developing terminal courses in junior colleges.

We have already made a good beginning in the development of terminal courses in what Dr. Koos calls the lower schools. We have definite terminal courses on a co-operative basis successfully in effect in senior high schools in Huntington Park, Los Angeles, Long Beach, Modesto, Oakland, Alameda, Berkeley, Vallejo, Stockton, Roseville, Sacramento, Fort Bragg, Manteca, and similar courses are being developed in Fresno, Pasadena, San Diego, and other cities.

University-Preparatory Function Effective

There is rather conclusive evidence that the university-preparatory function of the junior college, that is, the function of adequately training junior college students for successful work in the junior, senior and graduate years of any university is being effectively discharged. Professor Walter Crosby Eells of Stanford University who has made a comparative

study of the records of various groups of students at Stanford University over a three-year period gives us this conclusion: "Judging by results to date, the junior college seems to be successfully performing at least one of its important functions, that of preparation of students for advanced work in the university."

Vocational Counseling Essential

The number of potential junior college students who should be given terminal courses is brought out by the fact that we now have about 27,000 high school graduates. Not more than 50 per cent of these students usually have the necessary credits required to enter higher institutions of learning as freshmen. That means at least half of the high school graduates may profitably take terminal courses in junior colleges. The selection of suitable courses by the student is based upon effective vocational counseling. The building of adequate terminal courses must rest upon a clear realization of the fact that one of the important functions of the junior college is the guidance function. In this connection Dr. Thomas says:

> "The problem of wise guidance in the case of these students—meaning students who are not qualified to enter higher institutions of learning—is a complex one but cannot on that account be evaded by the junior college authorities."

A Student Vocational Counseling Card devised by the State department of education and used experimentally in sixteen typical schools illustrates concretely practicable guidance procedure. Kern County has adopted this card as its official form for a county-wide guidance program.*

Skill, Technical Knowledge and Social Understanding

The problem of the guidance of students into suitable terminal courses is one which is linked with industry and whose solution requires a consideration of the following:

1. Skill.
2. Technical knowledge.
3. Social understanding.

Occupational success, in the last analysis, depends upon these three factors, in varying degrees.

The level of each occupation determines how much skill, how much technical knowledge, and how much social understanding shall be developed in the student to insure occupational success.

The manager of a large manufacturing plant, who has a very competent secretary, on being asked how much he paid his secretary, is quoted as having said: "I pay him one thousand dollars a year for what he knows, and two thousand a year more for what he is."

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*The form of this card appears on page 151. On the reverse side of the card is printed detailed instructions to teachers and a form to be used as a follow-up record. A copy of this card may be secured by writing to the author of this article at Sacramento.—EDITOR'S NOTE.

STUDENT VOCATIONAL COUNSELING CARD

Name ..... Birthday ..... Age .....

School ..... Place ..... Year Ending .....

From School ..... Place ..... Grade .....

I.

Signature ..... Date .....

PRE-HIGH SCHOOL RATINGS

Mental ..... Rating: A, B, C, D, E ..... Score: .....

Health ..... Rating: A, B, C, D, E ..... Score: .....

Effort ..... Rating: A, B, C, D, E ..... Score: .....

Accomplishment ..... Rating: A, B, C, D, E ..... Score: .....

Pre-Vocational Work ..... Rating: A, B, C, D, E .....

Conduct ..... Rating: A, B, C, D, E .....

Special Aptitudes and Traits

Special Handicaps

Note: Block I is to be filled out by the junior high school principal, the counselor or the elementary school principal.

II.

Signature ..... Date .....

INTERVIEW

Student's Chief Vocational Interests:

1. .....
2. .....
3. .....

Vocation Student Would Like to Pursue .....

Number of Years Student will probably Attend High School .....

Remarks:

III.

Signature ..... Date .....

TRAINING RECOMENDED BY COUNSELOR

1. Leading to Professional Occupation .....
2. Leading to Nonprofessional Employment in .....
   - (a) Trade and Industrial Occupation .....
   - (b) Agricultural Occupation .....
   - (c) Commercial Occupation .....
   - (d) Home-Making .....
3. Parent's Approval: Yes ..... No .....

Remarks:

IV.

Signature ..... Date .....

EDUCATIONAL PROGRESS

1. Effort ..... A, B, C, D, E Semester 1st ..... 2nd ..... 3rd ..... 4th .....
   5th ..... 6th ..... 7th ..... 8th .....
2. Vocational Fitness ..... A, B, C, D, E Semester 1st ..... 2nd ..... 3rd ..... 4th .....
   5th ..... 6th ..... 7th ..... 8th .....

Remarks:

V.

Signature ..... Date .....

PLACEMENT AND EMPLOYMENT PROGRESS

1. Place of First Employment .....
2. Kind of Work .....
3. How Successful .....
4. Leisure Time Activities .....

Remarks:

Note: A copy of this card must be forwarded to the part-time school when the pupil who leaves the full time school to enter employment is eighteen years of age.

Here we have an expression of the relative importance of skill, technical knowledge, and social understanding. The manager in this instance definitely emphasizes the importance of social understanding. In order that we may be clear as to the meaning of skill, technical knowledge, and social understanding, we wish to define them as follows:

Skill means the actual doing of the work.

Technical knowledge means the information required to develop the skill necessary to do satisfactory work in the occupation for which training is given.

Social understanding is defined by Dr. Brewer as "human relationships or job wisdom; those qualities of character which ordinarily go deeper than skill or technical knowledge."

A prominent business man emphasizes the importance of social understanding as follows:

"We need young workers of character. If they don't know enough about their work we can help them to make up that deficiency on the job, but if they are lacking in character we can do very little with them." Here again we have the emphasis placed upon social understanding. The lack in skill and in technical knowledge, this employer believes, can be corrected on the job. The importance of giving the factor of social understanding its proper place and emphasis in a terminal course is brought out by Dr. John M. Brewer of Harvard University in the following statement:

> "It happens that the Bureau of Vocational Guidance of Harvard University some time ago put together some statistical data published in various sources giving the actually recorded reasons for discharges from industrial establishments in 4,375 cases. The figures were classified by us under two main headings: Lack of Skill or Technical Knowledge and Lack of Social Understanding."

Dr. Brewer concludes from this study that "all causes that could possibly be classified as skill and technical knowledge together total slightly over one-third, 34.2 per cent, while the social understanding constitutes the controlling reasons in about five-eighths of the cases, 62.4 per cent.

These facts and other facts which I have gathered in personal interviews with employers, employment managers, and personnel officers—104 different persons—indicate that terminal courses should be constructed with the purpose in mind of developing the skill, the technical knowledge, and the social understanding required to make the individual trained occupationally competent.

The terminal courses we now have in effect consist of practical work, instruction in technical subjects, and instruction in social studies. The practical work is usually spoken of as "the how" of the job. It is the job training designed to give the individual the skill required for the actual doing of the work. The instruction in technical subjects is designated as "the why" of the job, and includes instruction in mathematics, science, drawing, and other subjects intended to develop the skill necessary to do satisfactory work in the occupations for which training is given. The third phase of terminal courses provides for instruction in English,

history, and other social studies designed to make the individual an intelligent citizen and socially efficient—one who has social understanding and can appreciate the value of human relationships and those qualities of character which ordinarily go deeper than skill or technical knowledge.

Guiding Principles in Building Terminal Courses

The construction of terminal courses in the junior college should take into consideration the following principles:

1. Curriculum building is a co-operative undertaking. Dr. Willis L. Uhl of the University of Wisconsin in his *Secondary School Curricula*, page 558, says:

> "Despite the pronounced limitations of the busy teacher he has an opportunity to operate in spheres which are denied to the widely heralded curriculum expert; that is, the classroom teacher is the person who actually administers curricula and he is, therefore, able to set plans in motion and, if resourceful, to enrich the curricula by additions drawn from or suggested by local conditions, pupil characteristics, or the general purposes of the school. In addition to these opportunities to contribute to curriculum making, there is his opportunity of contributing important data and advice in the actual charting of the larger aspects of curricula."

The participation of the teacher in curriculum making is more important than many realize, for the effectiveness of any curriculum depends ultimately upon the convictions and practices of the teacher.

2. Curriculum building should take into consideration the following relationships:

a. Pupil-teacher relationship.
b. Pupil-school relationship.
c. Pupil-parent relationship.
d. Pupil-vocation relationship.
e. Pupil-community relationship.

3. Curriculum building should take into consideration the type of area to be served by the school and the community facilities available for co-operative education.

4. The effectiveness of the curriculum may be measured in terms of the following criteria:

a. Development of right habits in the pupils.
b. Decrease in school irregularities.
c. Stabilizing school attendance.
d. Effectiveness of procedure in social, educational and vocational guidance.
e. Effectiveness of opportunities for extra-curricular activities.
f. Pupil achievement in school.
g. Pupil achievement in higher institutions of learning.
h. Pupil efficiency in gainful employment.

These principles include the basic thought "that curricula should be planned to enable pupils most effectively and most fully to realize themselves"; and in building curricula "to enable pupils most effectively and most fully to realize themselves" we must give serious consideration to the fact that pupils realize themselves most effectively and most fully through the satisfaction of five fundamental desires. The satisfaction of these five fundamental desires is made possible through five fundamental capacities in five fundamental fields. The criteria set forth in the following chart are intended to show how terminal courses may be developed in the junior college that will enable pupils most effectively and most fully to realize themselves through the satisfaction of their fundamental desires, in the fundamental fields best suited to their fundamental capacities.

OCCUPATIONAL SUCCESS	CRITERIA for measuring occupational success of the worker	CRITERIA FOR TERMINAL COURSES		CHARACTERISTICS OF TERMINAL COURSES
1. SKILL (The actual doing of the job)	1. "Physically adapted." 2. "Is speedy and accurate." 3. "Seldom spoils any work." 4. "Completes every task satisfactorily." 5. "Carefully observes all details." 6. "Is painstaking." 7. "Gives constant and sustained attention to work. 8. "Is not easily distracted." 9. "Produces high quality commodity at minimum cost." 10. "Is respected for his craft skill." 11. "Takes pride in his work." 12. "Is improving himself in night school or thru correspondence courses."	OCCUPATIONAL INFORMATION 1. Professional. 2. Semi-Professional. 3. Skilled. 4. Semi-Skilled. 5. Unskilled.	STUDENT DESIRES 1. Health. 2. Home. 3. Job. 4. Recreation. 5. Service.	PRACTICAL WORK "The practical work should be the product of a conference of master workers and secondary school instructors of vocational subjects." "No school should attempt to duplicate the training facilities available in the community for cooperative training." "No secondary school can duplicate actual job environment."
2. TECHNICAL KNOWLEDGE (The information required to develop the skill necessary to do satisfactory work in the occupation for which training is given)	1. "Has effective substitution methods." 2. "Can meet and readily overcome obstacles." 3. "Adjusts himself quickly and effectively to new conditions." 4. "Can plan work independently." 5. "Has habitual self possession."	OCCUPATIONAL INFORMATION 1. Professional. 2. Semi-Professional. 3. Skilled.	STUDENT CAPACITIES 1. Mental. 2. Physical. 3. Moral. 4. Cooperation. 5. Occupational.	TECHNICAL KNOWLEDGE "The apprentice today cannot get on the job the technical knowledge required for success in the building industry. The best results can be obtained through a combination of work on the job with instruction in school." "We believe that the boy will make a better worker when he secures school instruction at the same time that he is actually doing work on the job."
3. SOCIAL UNDERSTANDING "Human relationships or job wisdom; those qualities of character which ordinarily go deeper than skill or technical knowledge." J. M. Brewer	1. "Is a good team worker." 2. "Has a good word for his boss and those who work with him." 3. "Is straight forward." 4. "Is punctual." 5. "Is truthful." 6. "Lives up to his promises." 7. "Is a clean thinker." 8. "Is not a trouble maker." 9. "Respects authority and intelligently follows all rules." 10. "Never loafs on the job." 11. "Seldom lays off." 12. "Discusses questions of public welfare intelligently."	PERSONNEL PROBLEMS 1. Attitude towards job. 2. Attitude towards fellow workers. 3. Attitude towards employers. 4. Attitude towards industry. 5. Attitude towards community.	STUDENT ATTITUDE 1. Attitude towards training program. 2. Attitude towards fellow students. 3. Attitude towards teachers and principal. 4. Attitude towards school. 5. Attitude towards community.	SOCIAL UNDERSTANDINGS "More failures are due to lack of character than to lack of skill or technical knowledge."—Roger Babson. "We need young workers of character. If they don't know enough about their work, we can help them to make up the deficiency on the job; but if they are lacking in character, we can do very little with them." "All causes (of discharge) that could possibly be classified as skill and technical knowledge together total slightly over one-third, 34.2 per cent, while the social understanding constitutes the controlling reasons in about five-eights of the cases, 62.4 per cent."—J. M. Brewer.

AN EVALUATION OF THE FACTORS WHICH CONDITION SUCCESS IN THE STUDY OF A SECOND FOREIGN LANGUAGE

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DOES the study of one foreign language aid materially in the study of another foreign language? Few people would answer "no" to this question, but the writer was interested to find out some tangible facts as to the extent to which the study of one language carries over to another. It is evident on the face of the matter that certain techniques as to translation, declension of nouns and verbs, word order, etc., would carry over, and also very evident that familiarity with roots common to various allied languages would aid materially in grasping the meaning of new words. The first of these—the technique—would hardly affect more than the first term or two of the second foreign language while the second—the understanding of the basic meaning of a new word through similarity to root forms previously studied—would be much more constant.

Comparison of Test Scores of Students with and without Previous Foreign Language Study

The first attempt to measure this difference was by comparing the scores of students who had taken two languages, with the scores of those who were now attempting their first language. All students tested by the Iowa Placement Test who were enrolled in a three-year senior or four-year high school were included in the tabulation. The following table expresses the results of this tabulation.

TABLE SHOWING DIFFERENCES IN MEDIANS OF GROUPS WITH OR WITHOUT PREVIOUS LANGUAGE STUDY

	Pupils Taking Second Language		Total Group					Pupils Without Other Language Study	
	Median	*No. Cases*	*Median*	Q_1	Q_3	*Sigma*	*No. Cases*	*Median*	*No. Cases*
Spanish II	38.4	441	32.9	24.6	42.7	12.8	1,109	29.8	668
Spanish IV	56.6	219	52.1	41.0	64.8	15.8	540	49.2	321
Spanish VI	70.0	128	68.4	52.7	83.2	20.2	270	67.3	142
Spanish VIII	71.2	21	72.0	63.0	82.0	15.2	38	73.1	17
French II	43.2	181	41.5	29.4	54.6	17.5	408	38.2	227
French IV	73.1	80	71.5	56.1	90.0	21.1	201	68.7	121
French VI	99.0	47	98.5	84.1	112.7	19.8	149	97.3	102

The findings from the above table are further confirmed by the medians which follow, derived from the scores of 1,027 pupils tested in San Francisco.

	Median of Attainment When Other Language Taken	*Group Median*
SPANISH IV		
Polytechnic	153.33	140.54
Commerce	162.5	128.33
Galileo	150.5	125
Lowell	193.33	178.5
Group	176.7	147.5
SPANISH VI		
Galileo	219.5	183
FRENCH IV		
Polytechnic	139	140
Commerce	131	136
Lowell	161.5	153
Galileo	130.5	126
Group	142.5	142.5
FRENCH VI		
Lowell	183.5	181
Galileo	196	162
Group	183	180
FRENCH VII		
Lowell	205	204.5
FRENCH VIII		
Lowell	237	237

It is evident immediately that the median score of those attempting a second language is considerably above the group attempting a first language—in some cases as much as half a sigma. It is remarkable that this advantage is maintained throughout although in a decreasing ratio as the language is pursued further. A further analysis of the above test scores revealed two definite groups. One group began foreign language early—in a majority of cases in the junior high school—and had pursued the study of that language for two, three or four years before taking up a new language. The median accomplishment of forty random selected pupils of this class is 54.1 against a group median of 43.2. Another group took a language for one-half or one year, then dropped it and attacked a new language; the median for forty random selected pupils of this class is 35.2 against a group median of 43.2.

The Factor of Length of Study in the First Language Compared to Success in the Second

Consequently it seemed advisable to work out some correlation ratios to see how much the factor of continued study of one language (in this case Latin or Spanish) correlated with success in another language (in this case as tested at the end of one year of French). So the following table was worked out to show the achievement in French II (Iowa Placement Test) of students taking one-half to four years of either Spanish or Latin.

CORRELATION BETWEEN NUMBER OF YEARS ONE LANGUAGE HAS BEEN STUDIED AND SUCCESS IN A SECOND LANGUAGE

	No. Cases	*Correlation*	+	*P. E.*
Latin and French II	125	+ .5597	±	5.08
Latin and Spanish II	113	+ .3411	±	4.6
Spanish and French II	143	+ .32	±	5.17
French and Spanish II	87	+ .41	±	4.97

Thus it is clear that the longer you study one language the greater the chance that you will succeed in a second language, although the correlation is not high enough to guarantee success in the second language if one persists in the first language long enough.

A Case Study of Success in Selected Classes According to Previous Language Studied

Now, since, from the two preceding investigations, it is clear that students who take a second language usually succeed better in the second language than the average student and also that the longer one persists in the study of the first language the greater the chance of success in the second language, it seemed best to investigate certain representative classes in first, second, and third year French and first, second, and third year Spanish. These classes were all from Berkeley High School where the general level of attainment was very good. This is a three-year senior high school, and many of the pupils have studied foreign language in the junior high school.

TABLE SHOWING RESULTS OF CASE STUDY OF PUPILS WITH AND WITHOUT PREVIOUS LANGUAGE STUDY

	No. Cases	*With Latin Mean*	*Without Latin Mean*	*Correlation*	*With Other Language Study*	*Without Other Language Study*	Correlation
Class A, French II	17	80.5	66.3	+.31±6.3	78.6	68	+.03 ±7.32
Class B, French II	20	58.4	44.2	±.71±3.55	58.2	37.6	+.65 ±3.97
Class C, French IV	21	95	104.3	—.16±9.98	99.5	98	—.01 ±9.39
Class D, French VI	22	123.7	109.3	+.26±5.2	119.9	105.3	+.42 ±4.59
Class E, Spanish II	17	59.3	50.8	+.46±2.86	56.3	50.67	+.202±3.45
Class F, Spanish II	23	34.7	39.2	—.17±7.41	39.5	37.7	+.30 ±4.62
Class G, Spanish IV	21	66.7	69.2	+.05±6.59	65.5	72.2	+.05 ±6.8
Class H, Spanish VI	21	79.2	72.5	+.14±5.08	79.3	68.5	+.31 ±4.86

The classes chosen for the table above showed no marked differences in age between the two groups—the median in each case being less than a year's difference. There was no marked difference in the grade of the pupil in school, the medians differing less than half a grade in all cases. There was no marked difference in intelligence quotients although there was a slight balance in favor of the non-language groups in classes C and F. Elimination of intelligence by partial correlation made all correlation ratios positive and gave an average correlation of .31±2.47.

To verify the results here obtained classes in two other schools, Technical High School, Oakland, and Mission High School, San Francisco, were selected. In Berkeley High School a majority of the students in the classes had taken a previous foreign language. In the two other cases this was not true. Such a close selection as to age and grade was not possible so the factor of age was eliminated by age-grade tables.

The Factor of Age and Grade

It is perfectly evident that the pupil who is taking a second foreign language is older than he was when he took the first language and that this factor of greater age and greater maturity should be evaluated in some fashion if the results are to show how much improvement is due to age and how much is due to the skill and knowledge derived from his previous language study. Fortunately the writer, in the course of the survey for the Modern Foreign Language Study, had derived age and grade tables for nearly six thousand students in California high schools including these particular high schools and by means of these age-grade tables was able to predict with a certain amount of assurance how much higher the score of an eleventh grade student, aged seventeen, taking beginning Spanish should be than a ninth year student, aged fifteen, taking similar work.

Separate correlations for Latin were not made for these schools as the investigation at Berkeley had shown that, while those students studying Latin previous to another foreign language had made higher scores, their intelligence scores were enough higher than the rest of the group to level down their achievement to the class median when intelligence was eliminated by partial correlation. Of the twelve correlations made between the language and non-language groups in Technical and Mission High Schools four were negative and the highest was $+.58\pm3.67$. The application of the age grade tables made two of the four negative correlations positive and raised the general level of correlation. The final correlation for Technical High school was $+.24\pm3.78$ and for Mission High School $+.19\pm3.16$. Thus the results confirmed the results found in the Berkeley High School investigation, but to a lesser degree.

Conclusions

1. The study of one foreign language does help considerably in the acquisition of a second foreign language.

2. Within the limits of the seven years of secondary education (the field of this study) the longer one studies one foreign language the surer of success in the second language he will be.

3. Previous study of Latin did not prove more advantageous than previous study of Spanish for success in French, nor did the previous study of Latin prove more advantageous than French for success in Spanish.

4. The transfer of ability in one language to the second language studied was slightly greater in the first year of study than in the later years.

5. However the influence of previous language training was positive and considerable throughout the study of the second language.

6. A foreign language studied only one year possesses very little transfer value in the acquisition of a second foreign language.

THE JUNIOR HIGH SCHOOL MERIT PLAN*

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ONE of the various means of meeting the disciplinary problem in the junior and senior high schools is the merit system or merit plan. The use of the merit plan has become quite prevalent in secondary schools during the last decade. In 1926 Mr. E. Cline[1] made a study of the merit plans in the senior high schools of California, and, feeling the need of a similar study with particular reference to the junior high school, the writer has attempted such, and it is the purpose of this article to present briefly the results of that study.

In order to collect the necessary data two questionnaires were used. The first one was sent to all junior high schools in the state of California in an attempt to ascertain whether or not the use of such a plan is considered advisable by junior high school administrators. The results of this first inquiry seemed to indicate that the use of a merit plan is very desirable, especially in the larger schools. The purpose of the second questionnaire was to learn the detailed structure of the merit plans now in use in the junior high schools of California. After a rather extensive reading on the subject of discipline in general, the theories which should underlie such a scheme were decided upon, and, on the basis of all these data, the general criteria for the design of a merit plan were formulated. From these criteria a plan was designed for the John Muir Junior High School of Los Angeles.

I. The Theoretical Foundation of a Merit Plan

Aims. The aims of a merit system should be threefold:

1. To secure favorable conditions for learning.
2. To prepare pupils for participation in adult society.
3. To impress the fundamental lessons of self-control.

Underlying Principles. The underlying psychological and sociological principles upon which an effective system should be built are:

1. It must be positive and constructive rather than negative and restrictive.
2. It must divert the potentialities of less desirable activities into channels of usefulness.
3. It must require of the pupils only those things which are within the realm of reasonable possibility.
4. It must substitute a wholesome and desirable form of activity rather than inhibit all activity.
5. It must harmonize with social ideals outside of the school room.
6. It must be administered on the highest plane which the pupils can understand.

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*From a Master's Thesis, University of Southern California, 1927.

[1] Cline, E. C.: *Merit Systems in California High Schools.* (A Master's Thesis at the University of Southern California, 1926.)

7. It must take into consideration the time required to bring about a change in the attitude and habits of the pupils.
8. It must involve elements of fairness, kindliness, sympathy, sanity, poise and respect for the school and its administrator.

Punishment. A merit plan should include punishment which endeavors to do three things:

1. To give expression of disapproval of wrongs committed.
2. To deter others from committing like offenses.
3. To reform the offender.

In order for that punishment to be effective the following should be true:

1. It must be just and recognized as such by the one being punished.
2. It must be certain.
3. It must be either mentally or physically painful.
4. It must be understood.
5. It must be associated with the offense and, so far as possible, be a natural result of it.
6. It must deter both repetition by the offender and performance of the same act by others.
7. It must meet the approval of the group of which the offender is a member.

Rewards. A merit plan should provide rewards which serve to do three things:

1. To give expression of approval of certain desirable acts.
2. To encourage others to do similar acts.
3. To produce a pleasant outcome to certain activities such that the doer will experience satisfaction and have a desire either to repeat or to continue with that or a similar activity.

In order for these rewards to accomplish the desired results, the practice of giving these rewards should be in accordance with the following:

1. Rewards should not be indulged in to the extent that the pupil feels that he is being paid for obedience and industry.
2. Privileges and honors should be granted rather than material rewards.
3. Rewards should be given to groups rather than to individuals.
4. Rewards should be in harmony with social ideals and should be, as nearly as possible, a natural outcome of the effort expended.
5. Rewards should be certain, just, effective and educative.

II. The Mechanical Structure of a Merit Plan

From a study of the mechanical structure of the merit plans used in thirty-three junior high schools of the state of California and some limited experience in this field, the writer gives suggestions here for the structure of a merit plan which is intended to be simple, efficient, effective, to involve as little clerical work as possible and to conform to those basic principles mentioned above.

Merits and Demerits. Each pupil should start the new semester with 100 merits. There should be provision for both getting demerits and earning merits, and the merit mark should cancel the demerit mark.

Who Should Give Merits and Demerits? If possible, the power to give merits and demerits should be vested in one person and in so doing that person should be governed by very objective rules involving as little personal judgment as possible. However, if a merit plan is to include conduct in general, this power cannot be centralized in one person. In that event it seems that teachers or pupils on duty should make recommendations to a Merit Board or committee for approval or disapproval. This Board should consist of both teachers and students.

What Should a Merit Plan Include? A merit plan may include attendance, conduct and scholarship, or only any one or two of these, depending largely on the size of the school and the other organizations in the school. Nearly all of the systems studied included attendance and conduct while about half of them gave consideration to scholarship also. It is the opinion of the writer that outstanding scholarship should be given recognition by means of a Scholarship Society. In that event the pupil is rewarded with an honor which is purely immaterial, and furthermore he is not as likely to get the idea that he is being paid for making good grades as he would be if he were being given merits. The writer also believes that, whenever possible cases of misconduct in a classroom should be settled between the teacher and the pupil and that it is not necessary for a good teacher to have a merit system which may be used as a weapon in classroom situations. Besides, if this power is given to teachers it is almost invariably abused. It seems, especially in large schools, that a merit plan should be concerned only with attendance and conduct outside of the classroom.

For What Should Demerits Be Given? What a merit plan includes determines that for which demerits shall be given. The fifteen most common causes, in order of their frequency, for demerits in the systems studied were:

1. Cutting.
2. Tardiness.
3. Truancy.
4. Cheating.
5. Stealing.
6. Misconduct in class or halls.
7. Leaving grounds without permit.
8. Smoking and possession of tobacco.
9. Late excuse.
10. Lying.
11. Forgery.
12. Defacing property.
13. Profanity.
14. Rudeness.
15. Failure to bring supplies to class.

For What Should Merits Be Given? The fifteen most common ways in which merits might be earned were:

1. No absence.
2. No tardiness.
3. Student body offices.
4. Scholarship.
5. Athletics.
6. Good merit record.
7. Club activities.
8. Assembly performance.
9. School paper staff.
10. Paper drive.
11. Musical organizations.
12. Helping in office.
13. Banking.
14. Library service.
15. Special service.

The advisability of the practice of giving merits for the above is questioned by a great number of junior high school administrators, and it does seem to be somewhat at variance with the principles set forth herein. Although the practice is positive in nature, there is the danger that the pupil will feel he is being paid for doing that which is his duty to do. He should be made to realize that there is a reward for doing one's duty which is of far greater intrinsic value than having credit for a few merits. Another objection to the giving of such rewards is that it is comparable to only a negligible number of real life situations.

The writer takes the liberty here to introduce a scheme which in practice seems to overcome this difficulty very effectively. It is suggested that pupils not be permitted to earn merits in any of the manners men-

tioned above, but that they earn merits by attending a special class in Citizenship where they may learn why those things for which they were given demerits are so undesirable. More is to be said about this class under the heading of Remedial Discipline.

Rewards. The suggestion is made that no individual rewards be given but that the home room or rooms having the highest standing be designated by some mark of distinction, such as a banner, and be granted some special privileges. In order to keep up the enthusiasm, this award should be made every half semester. In the larger schools there should be one such distinguished room in each grade. Although it has been suggested that outstanding scholarship be recognized by a Scholarship Society, marks may well be combined with merits in calculating the standing of the home rooms. The following formula is offered for that purpose:

$$X = \frac{(2A + B) - (D + 2E + 2M)}{N}$$

X — Index indicating home room standing.
A — Number of A's received by pupils in that room.
B — Number of B's received by pupils in that room.
D — Number of D's received by pupils in that room.
E — Number of E's received by pupils in that room.
M — Number of merits lost by pupils in that room and not made up.
N — Number of pupils in home room.

Punishment. In case of a poor merit record the pupil should be required to attend the special class in Citizenship, barred from student activities, required to bring parent or guardian for conference with principal, suspended or, if consistently poor, denied the privileges of graduation.

Bookkeeping and Publicity. Individual card files should be used for keeping the merit records. (See Fig. I.) Entries may be made on these from duplicate tardy slips, absence cards, or from other notations coming from the attendance office or Merit Board.

FIGURE I

INDIVIDUAL MERIT RECORD

JOHN MUIR JUNIOR HIGH SCHOOL
LOS ANGELES

*Name*_____
Surname First

One Hundred Merits are credited the above student at the beginning of each semester.

GRADE	H. R.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	BALANCE	DATE

These records may be kept by a clerk or teacher or any reliable person available; it is suggested that student help be used very sparingly. At the end of each week a report of merits earned or lost by the members of each home room should be sent to the home room teacher. (See Fig. II.) The home room teacher should also keep a record of the standing of the pupils in his own group which may be kept up to date from the weekly reports just mentioned. The merit balance should appear on the report card and also be sent on to other schools when transfer is made.

FIGURE II

WEEKLY MERIT REPORT*

..... H. R.....

Home Room Teacher

During the week ending ....., the following pupils lost or earned merits as indicated below: (Any pupil whose name is underlined with red ink must report to Merit Meeting, Monday at 3:15, in Room 113.)

Name	*Merits Lost*	*Cause*	*Merits Earned*	*Balance*

Cause of lost merits:

1. Unexcused morning tardiness..... 5 merits
2. Unexcused class tardiness..... 3 merits
3. Truancy ..... 10 merits
4. Failure to report to Merit Meeting 5 merits
5. Leaving grounds without permit..... 5 merits
6. Loss of absence card..... 3 merits
7. Unexcused absence from class or roll call 5 merits
8. Unsatisfactory excuse..... 5 merits
9. Late excuse..... 3 merits

It is important that every pupil be thoroughly familiar with the plan in use; therefore, it should be described in handbooks and bulletins, discussed in home rooms, or brought to the pupil's attention in any other convenient or effective manner.

III. A Merit Plan[2]

After considering the factors existing at a specific school, a merit plan has been designed for that school on the basis of the foregoing as follows:

1. At the beginning of every semester each pupil is credited with 100 merits.

2. *How Merits May Be Lost.* Merits are subtracted according to the duplicate unexcused tardy slips and other notations coming from the registrar's office as follows:

*Size of card, 5½ x 6½ inches, leaving 3½ inches for record.

[2] It will be noted that the system applies to attendance only. In the opinion of the writer, this is as it should be for if a merit plan is made to include too much, it becomes clumsy, unwieldy and ineffective, especially in a large school. It seems that other organizations, such as Safety Committee, Grounds Committee, etc., should be used also.

Unexcused morning tardiness	5
Unexcused period tardiness	3
Unexcused absence from class or roll call	5
Truancy	10
Absence with unsatisfactory excuse	5
Leaving grounds without permit	5
Failure to report to Merit Meeting when attendance is required	5
Late excuse after absence, per day	3
Loss of absence card	3

3. *How Merits May Be Earned.* Students who have lost merits are permitted to earn them back by attending a Merit Meeting which is a special class in Junior High School Citizenship and meets every Monday from 3:15 to 4:10.

For each regular Merit Meeting attended, 3 merits are given. For attendance at three consecutive meetings 10 merits are given.

Students are permitted to attend Merit Meetings as soon as they have lost merits, but they may never have more than 100 merits.

Merits may only be made up within three weeks after they are lost.

4. *Rewards.* At the end of every ten weeks a banner is awarded to the home room of each grade which has the highest standing in merits and scholarship combined.

During each ten weeks there is a special assembly which is attended by only those who are in the honor rooms. The program of this assembly is bother entertaining and educative.

5. *Penalties.* If a student loses 10 merits during the first ten weeks of a semester or a total of 15 merits before the end of the second ten weeks of a semester, he is required to attend three Merit Meetings.

Any pupil whose record falls below 70 must bring his parent or guardian for a conference with the principal.

Any one whose merit record is below 70 for the total period of time at this school is denied the privileges of graduation.

Pupils who are truant, in addition to the loss of merits, must have a conference with one of the vice-principals.

Any pupil who is required to attend Merit Meetings is barred from all club activities during the time between the meetings he is required to attend.

No pupil with an average merit record below 90 is to be permitted to run for a student body office.

IV. Remedial Discipline

Mention has already been made of a special class in Junior High School Citizenship, conducted in connection with the merit plan. This class is intended to take the place of a detention room and to give opportunity for some constructive remedial discipline.

In the opinion of the writer, most of the present teaching of behavior and conduct is so far removed from the actual experience of the child

that it is almost futile. It seems that the child of junior high school age can profit little from generalizations and for that reason the writer has attempted a plan which deals with specific instances in the experience of the child.

The writer believes also that the child of this age knows very well what he should do and what he should not do, but that he does not always stop to anticipate the results of his behavior. Assuming that this is true, it is necessary only to devise some means by which the child is required to stop and think, and a great part of the disciplinary problem is solved. In an attempt to meet this problem there has been assembled a series of Practical Lessons in Citizenship. The lessons were written by A9 English students under the writer's directions and are therefore standards of behavior set up by the boys and girls themselves and expressed in their own language. At the end of each paragraph a question has been inserted requiring the pupil to think of his own behavior in terms of these standards. The lessons deal with the following character traits: honesty, conduct, sportsmanship, self-control, obedience, cleanliness, industriousness, and respect. A sample lesson is given herewith.

Obedience

A. *Obedience to Parents.* Obedience to parents shows that a child has reasoning faculties, for children understand that a person who has lived many years longer, and is more experienced as a result, is better fitted to guide them than they are themselves. Disobedience is one of the greatest causes of unhappiness in the home. If you are not obedient, you make yourself disagreeable and are therefore disliked by your acquaintances. Many times you think that your parents' ideas are old fashioned and, from the way they are always after you to do things, that they never had any good times and do not want you to have any. The truth is that they are trying to help you and let you have the right kind of pleasure. All the advice of your parents is for your future good although you may not think so at the time the advice is given. Remember that the best way to "Honor thy Father and Mother" is to respect and obey them.

Are you as obedient to your parents as you should be? If not, how can you improve?

B. *Obedience to One's Better Judgment.* Obedience to one's better judgment is an important element throughout the life of any individual. Some people do the things that they think are the easiest and do not tackle those things which are more beneficial because they are more difficult. These people lose out in the long run, but if they had obeyed their own better judgment, some of the catastrophies of their lives might have been averted. Many people do not use their own judgment, but let themselves be lead into the most disastrous of wrongs. Be your own judge and choose what is best; however, do not become headstrong and disregard the opinions of others entirely. Always be willing to take advice from others and if it is good, obey it; if it is bad, discard it. Try to profit by the folly of others.

Have you ever been led into trouble by the influence of others? If so, how could you have avoided it?

C. *Obedience to the School's Rules of Conduct.* Schools are judged by the action of the student body and the faculty, therefore every individual should regard it as his duty to obey the rules of the school. It is not very difficult for a student to detect the difference between right and wrong and to overcome

the temptations which are set before him. Regard the school's rules as part of your daily work. If one pupil should disobey a rule, it is the privilege of every other one to disobey it also. Remember that the rules of the school are made so that there might be the best possible chance for learning to take place.

Is there any way that you can comply more nearly with the school's rules of conduct? If so, how?

D. *Obedience to Government.* A person should obey the laws because anything our government requires is for the good of everyone. One should not tempt others to disobey the law. Disobeying the law causes disorder and often the ruin of a nation. Always try to set a good example, especially for younger people. Every time a person breaks a law, he is not only lowering his moral self but is disregarding the rights of others. Often the disobedience of one law is the ruination of a whole career. We can not expect others to obey the laws if we ourselves do not obey them. If we continue to break laws, we show others that we have no self-control or regard for the rights of others. If we see others doing wrong and breaking the law, we should do all in our power to prevent it happening again. Our government is one of the best, and, if we wish to keep it so, we must obey its laws.

What are the five laws or ordinances which you think should affect your behavior most?

Procedure of Merit Meetings. The procedure of the Merit Meetings, or special classes in Citizenship, is quite simple. The pupils are given a copy of the lessons and a piece of paper on which to answer the questions. The class is conducted in much the same manner as any academic class. The teacher in charge gives the necessary directions very briefly and allows the class to go to work. Each lesson is intended to take about one hour but if a child finishes one lesson before the end of the hour, he may occupy the rest of the time in looking over some of the other lessons. At the end of the hour the papers are collected, the class dismissed, and each child who turns in an acceptable paper is credited with the proper number of merits.

TYPICAL READING DISABILITIES OF COLLEGE ENTRANTS *

BEATRICE F. ALBRIGHT
and
FLOY HORNING

READING is one of the means by which one satisfies his desire to know, makes greater his vocational efficiency, finds enjoyment in life, gains a fuller understanding of life, and develops ideals and standards for the guidance of his own life. The type of reading most used to accomplish these aims is silent reading; seldom, if ever, is oral reading required. It has been estimated that approximately 95 per cent of the reading of the average adult is done silently. The educational world has come to realize that if it is to train pupils for the activities of real life by having classroom activities duplicate as nearly as possible the conditions of life, then training in silent reading must receive more attention than is now given to it.

* From two Masters' Theses, University of Southern California.

Importance and Characteristics of Silent Reading. To understand better the difficulties which are encountered in silent reading it is necessary to note wherein silent reading differs from oral reading. Silent reading gives training in that kind of reading most used in life. It is this type of reading which an individual is called upon to use innumerable times each day.

An individual's efficiency depends to a degree on the rapidity with which he reads. Among the items on which we now have experimental evidence are the following: Silent reading is more rapid than oral reading in that it is more economical in point of time, eye, and voice strain. Vocalization necessary to oral reading involves all the mechanisms of speech, and cannot keep pace with the rapidity of eye-movements which alone are involved in silent reading. The eye makes fewer fixation pauses in silent than in oral reading, and so the strain upon the eye is lessened.

Silent reading not only is more rapid than oral reading, but it permits of selectiveness. Those materials which are uninteresting or of little importance may be passed over rapidly while factual and logical materials should call for careful reading.

Silent reading aids in comprehension, for attention in silent reading is entirely given to the interpretation of the words read. In oral reading attention must also be given to articulation and enunciation. The greater speed with which materials can be brought to the mind is also a factor that aids in comprehension. Because of the ability to take in larger units at a glance, organization of the material which aids in comprehension is facilitated.

Comprehension of printed materials involves the identification of ideas and the association of right ideas with proper weights given to each. Failures to identify correctly and to make the right associations are termed errors in reading comprehension. What constitutes the reading process as seen in an analysis of the errors of high-school graduates? It has been the purpose of this study to determine at least a partial answer to that question.

Reading Comprehension of College Entrants Tested. While the processes involved in reading comprehension are largely subjective, the result of the processes may be judged by weighing the responses given to questions related to what has been read.

Available for this study were The Thorndike Intelligence Booklets, Form P, on reading comprehension which had been given to 1,053 college entrants at the University of Southern California. In relation to this material a very definite problem formulated itself, namely, (1) to classify the disabilities experienced by 1,053 college entrants as illustrated in the errors made in the section of The Thorndike Intelligence Examination, Form P, devoted to reading comprehension, and (2) to determine the frequency with which each disability appears in order to ascertain the major cause for failure to comprehend the content of the printed page.

In order to classify the errors a tentative list of difficulties was formulated, using the results of studies made by others, chief among those being

the errors reported in an earlier study made by Mrs. Horning. These, which were typical of the errors made in the Thorndike Intelligence Examination, Form P, plus others which the answers themselves showed to be peculiar to the test, made up the final list of disabilities under which all the errors were classified.

Of the total number of responses given by the 1,053 college freshmen 31.35 per cent were errors, 41.03 per cent were correct, while 27.62 per cent were omitted.

What effect did omissions and errors have on the achievements of the students as measured by the scores made? The average score or mean made by the 1,053 college entrants on the entire examination was 53.53. According to the standards of grading provided by the maker of the examination, it is possible to have a total score ranging anywhere from a negative quantity to a positive 144. This particular group of students earned scores between 5.5 and 112 with the mid-point or median score at 52.7. The middle 80 per cent of the cases, P 10-P 90, fell between the scores of 31.6 and 81.1. Thus it is seen that after having eliminated the upper and lower 10 per cent, certain students within this group made scores approximately two and two-thirds times as great as others. Using only the middle 50 per cent of the cases, P 25-P 75, the scores ranged from 41.2 to 66.8, meaning that certain scores are more than one and one-half times as great as others within this restricted group.

To know that a particular group of college students made a certain number of errors, or a given score, does not aid in solving the difficulties experienced in reading comprehension. It was necessary to group each error under that particular type of difficulty which it represents and to find what part of the total number of errors was given over to each one of the types of reading disability. This method of procedure was the one followed by Mrs. Horning. The results here given are taken from the second study, that of Miss Albright.

A TABULAR SUMMARY OF THE FREQUENCY OF READING DISABILITIES AS SHOWN BY A DIAGNOSIS OF THE TOTAL NUMBER OF ERRORS MADE BY 1053 COLLEGE ENTRANTS

Typical Errors in Order of Frequency	*Number of Errors Noted*	*Per Cent of All Errors*
1. Inability to associate the related elements of context (In cases where the question is relatively easy to comprehend)	8,915	37.5
A. Failure to make correct associations due to the limit of life experiences, either real or vicarious	1,479	6.2
B. Failure to make correct associations due to the meagreness of vocabulary, either		
1. Words in common use	1,095	4.6
2. Technical words	734	3.1
C. Failure to make correct associations due to the occurrence of words frequently or emphatically used in other situations	297	1.2
D. Failure to neglect irrelevant material	1,426	6.0

E. Failure to note the tense of the verb, thereby not differentiating correctly between present and past..	1,013		4.3
F. Inability to deduce a specific answer from a general idea or from a series of related ideas	2,871		12.1
2. Inability to isolate the elements of an involved statement incontext read		5,603	23.6
A. Inability to isolate the essential idea or element, giving instead general items taken from the sentence, the paragraph, or the questions	1,810		7.6
B. Failure to note the potency of restrictive phrases and clauses	710		3.0
C. Failure to note or list all the elements of a thought or statement	3,083		13.0
3. Failure to grasp or retain from given explanations the ideas essential to the understanding of concepts presented later		5,064	21.3
4. Failure to see the setting of the context as a whole		2,032	8.6
A. Inability to select the title of the paragraph	1,765		7.5
B. Failure to judge correctly of materials preceding and following the paragraph	267		1.1
5. Inability to fully understand the question		1,785	7.5
A. Failure to understand the meaning of words used in the question either	16		.07
1. Words in common use	(6)		(.03)
2. Technical words	(10)		(.04)
B. Failure to note the significant or qualifying word, phrase or clause in the stated question or instruction	1,264		5.3
C. Failure to interpret the question in relation to its context material	337		1.6
D. Failure to follow specific directions as stated	128		.5
6. Irrelevant responses		361	1.5
Careless, irrational, or impossible answers possibly due to peculiar individual experience.			
Total		23,760	100.0

As seen from the table the types of disabilities which appeared with the greatest frequency were those which involved a finer analysis and association of the reading material than did the others. These records show that students should be taught to isolate and relate important elements of the content presented in the printed page. Not only should the students be taught to analyze, but they should gain practice by doing such work under the direction of the teacher.

The purpose of this study was not to suggest remedial agencies and procedures, but to point out those difficulties which senior high-school students experience in the comprehension of materials of a factual and logical nature. The percentages given in the foregoing table indicate the relative importance to be attached to the several types of difficulties as shown in the reading errors made by a large group of college entrants in an examination which required a full hour of time in an attempt to master the content of printed materials.

THE ATTENDANCE PROBLEM OF THE EVENING SCHOOL

EDITH EVERARD ROCHE
Oakland Evening High School

The following pages are taken from a thesis submitted by Miss Roche to the University of California in partial satisfaction of the requirements for the degree of Master of Arts, the complete title of the thesis being, "An Analysis of the Attendance Problem of the Evening School," 1926.

The data upon which Miss Roche bases her "Summary and Conclusions" and "Suggestions and Recommendations" were gathered from twenty-seven cities in the United States where evening schools have been successfully conducted for a term of years.

One fact is brought out in this study which the Editor thinks should claim the serious attention of those responsible for the administration of evening schools, namely, that in the departments operating evening schools, with an aggregate enrollment in the United States in excess of 2,000,000 pupils, there are reported but two cities where efficient measures have been adopted for educational and vocational guidance for evening school pupils. "A program of guidance was attempted a few years ago in the Oakland Evening Schools, but had to be given up on account of lack of funds," says Miss Roche, and yet the mortality of evening school pupils is so heavy as to constitute a major problem in human and economic waste. A careful examination of the published directory of teachers in all evening schools in California reveals the fact that no teacher is listed as "counselor" or for "vocational guidance."

In addition to the conclusions and recommendations of this study, we have included here the chapter on a "Brief History of Evening School Development."—EDITOR'S NOTE.

Brief History of Evening School Development

THE history of the public evening schools in the United States may be roughly divided into three periods:

1. The Private Evening Schools.
2. Evening Schools Founded by Benevolent Societies.
3. The Free Public Evening Schools.

Private evening schools had their greatest development in the nineteenth century, although there is evidence that they were established as early as 1661 in Colonial New York. In 1823, the Public School Society passed a resolution permitting their teachers to hold evening school in the school building at their own expense. Tuition fees were usually charged in all these schools, the rates, in most instances, being higher than those charged in the day school.

The first free evening schools in the country were established by benevolent societies for slaves and free negroes. The first of these started in New York about 1715, but the real philanthropic movement began about 1810, or a little later. Some public aid was given for the support of these schools, but the principal expense was borne by the societies. In 1856, the number in attendance in such schools was about 2,500. Although there was no fee charged in these schools, and they often received public

aid in the form of free buildings, small sums of money, etc., they were not considered part of the public school system.

The free public evening schools developed directly and naturally from the evening schools controlled by philanthropic agencies and partly supported by public funds. Louisville, Kentucky, claims the honor of establishing the first public evening school in 1834; Baltimore followed in 1840; New York in 1847. By 1860 there were at least fifteen cities where evening schools had been established and nearly all the larger cities were familiar with the idea of such schools and the use of public money for their support.

By 1881, there were thirty-two evening schools in operation; in 1890, 165; in 1901, 921, with an enrollment of 203,000; in 1914 there were approximately 300,000 enrolled in the public evening schools. In 1916 the total attendance was estimated at 647,861.[1] Owing to the many classifications into which evening school attendance is divided, it is difficult to secure reliable data as to the number enrolled in the various public evening schools of the country at the present time, but a conservative estimate places it as well over 2,000,000.

These schools in general offer educational opportunities along the following lines:

1. Repetition of the work of the regular elementary and secondary schools.
2. Vocational instruction, chiefly along commercial and industrial lines.
3. General information and cultural instruction for those whose work offers little or no opportunities for such instruction.

Aim and Value of Evening Schools

Adult education by means of evening schools and special day classes has become pretty generally established at the present time as a part of the public school system in nearly all of the states, and it is no longer necessary to advance arguments to justify the existence of publicly supported evening schools. They have within the last decade come to be regarded as an essential part of the public school system in all progressive communities. Most communities no longer feel that they have solved the educational problem when they have provided adequately for the youth of their community. Economic conditions and other factors often make it impossible to keep the young people in school long enough to receive a sufficient amount of education for efficient citizenship, and the rapid progress and development in human affairs, the constantly changing social, economic, political, and scientific conditions make it necessary to provide some means by which education may be made a "life-long process," and a way provided by which those who leave school early, the misfit, and the immigrant may be better fitted for efficient living.

The goal of the evening school is to reach all those in need of the help it offers in order to make them an economic and social asset for the State.

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[1] Dexter: *History of Education in the United States.*

The demand for popular education which will include "all the people" and the broadening of the slogan, "Educate all the children of all the people," to "Educate all the people of all ages, conditions, and occupations," is making itself manifest in State educational progress, and classes are being provided to meet the demand. The facts that education and progress should have no age limit, that adult education makes for better citizens and better homes, and that whatever tends to equalize opportunity and raise standards of living is a good investment of public funds, seem to be pretty generally accepted.

Adult education is an investment for present returns. By means of continuation classes for the adult we may remove the menace of illiteracy, make possible more intelligent voting, provide the necessary citizenship training for foreigners, develop an appreciation of American ideals, and help remove social unrest by training for a wiser use of leisure time. In addition to all this, the adult is helped to become more efficient along vocational lines through opportunities given to improve himself in his chosen vocation or to prepare for another line of work for which he feels he is better suited.

The evening schools are materially helping in the education of the working people and are aiding in the development of a genuinely democratic educational system in the United States. These schools are assuming a place of recognized importance, and as experience and study show what type of education should be given in them and how it should be given, their worth and influence in the community as a factor for social betterment will continue to increase.

Summary and Conclusions

From a study of the holding power in a number of evening schools, it is evident that an average of 40 per cent of the students who enter evening school drop out before the close of the term. In some cities this percentage is much higher.

The highest percentage of elimination occurs in the commercial and academic departments.

Attendance statistics indicate that a large percentage of students attend the classes less than ten evenings, and considerably over 50 per cent of the enrollment drop out in less than twenty evenings. Less than 5 per cent of the total number continue through the entire term.

Of the students enrolled at the Oakland Evening High School, Oakland, California, during the year 1924-25, 30.3 per cent were under twenty years of age, and 60.2 per cent were under twenty-five years. The greatest percentage of elimination occurred among students under twenty-five.

Loss of interest in class work is evidently due in great measure to the present enrollment methods, which furnish the teacher practically no information concerning the qualifications or needs of the student, and give the student little or no insight concerning the type of work for which he is enrolling. The result is that many students go into classes for which

they are unsuited or for which they lack the necessary foundation, they soon become discouraged, their interest and ambition die, and inevitably they drop out.

The success or failure of class work depends largely upon an intelligent sifting and classification of the students at the time of enrollment. In order to secure information upon which to base such a classification, the evening school must have a plan by which the students may be given educational and vocational guidance. Even as such guidance has proved its value in the regular day high school, and in the junior college, in the assistance of students from sixteen to twenty years of age and over, to determine their vocational aptitudes and the training suitable therefor, it will be found even more helpful in the evening schools. For here the students have had less in the way of educational advantages. In many instances they have been forced to leave the regular day schools and take the first remunerative openings available in unskilled trades, or in occupations into which they stumble by accident or necessity rather than through deliberate or conscious choice. In practically all cases the contact of these students with the industrial or business world has awakened in them a desire for improvement. But they need the co-operation of those who are able to analyze their abilities, opportunities, and desires, and to plan for them the course of study they should follow. Vocational and educational guidance is, therefore, even more valuable to the many students enrolled in evening schools, the majority of whom are engaged in occupations from which, or in which, they can advance only by special effort to secure training outside of regular working time.

Failure of the evening school to provide some means by which knowledge may be secured of the previous educational qualifications, experience, capacity, and interests or vocational needs of the prospective student, and to guide him into courses which fit his needs and for which he has the necessary educational background to succeed, will continue to result in ineffectiveness of instruction and loss of membership in the various classes.

The need of vocational guidance in the evening schools has been recognized by evening school directors in some cities. Two cities, St. Louis, Mo., and Washington, D. C., reported having a vocational counselor on full time for this work. A program of guidance was attempted a few years ago in the Oakland Evening Schools, but had to be given up on account of lack of funds. Practically all guidance given in the evening schools at present, outside of the two cities referred to, is given by the principal and teachers of the various subjects.

Suggestions and Recommendations

The entire week before the opening of school should be set apart for preliminary registration and consultation. This registration should be in the hands of a trained counselor and his assistants. If this is not possible, the principal should select from his teaching corps those who have had successful teaching experience and business or industrial experience,

because they will better understand the obstacles which the worker has to overcome and be better prepared to give the right kind of guidance. Each applicant should be interviewed personally. If the number enrolling is too large to allow this, applicants may be handled in small groups. There are always a considerable number of applicants for admission who have pretty definitely in mind what they want and for these it would be necessary only to find out whether or not they have the necessary educational qualifications. Record cards would give the age, nationality, previous education, experience, present occupation, and ambitions of the applicant. This information required at the time of registration and used as a basis for advice as to choice of subjects, would prevent many misfits and unprofitable educational endeavor with the resulting loss of interest, discouragement, and elimination.

Psychological tests and measurements will aid in the classification of the student who has had little or no previous educational training. It is difficult to decide without something more definite than personal opinion what advice to give such a student. A brief test would supply a prognostic basis for both vocational and educational advice and lessen the chances of the student's failure, with the consequent discouragement and elimination which results from incorrect classification.

Miss Ethel Swain has prepared a series of tests[2] to aid in the grading and placing of foreign students. Tests have also been prepared to measure the student's progress, so that promotions may be made as often as the student shows his ability to do the higher grade of work, while the slower student is not pushed beyond his capacity.

The Otis Self-Administering Test successfully determines the fitness of those wishing to take shorthand. Those receiving low scores should be given special counsel to see if there is not some other subject they could take up in which they would have a greater chance of success and which would prove more profitable to them. Achievement and proficiency tests may be used to classify those applying for advanced work in shorthand, bookkeeping, etc.[3]

The Woody-McCall Mixed Fundamentals Test and the Stone Reasoning Test have been used at the Oakland Evening High School, and a reclassification of the students enrolling for grade work made on the basis of these tests.

The use of mental tests, etc., is not limited to those whose qualifications cannot well be determined without their aid. They can also be used to advantage in connection with students who are anxious to change vocations, or who are in doubt as to which particular branch of their present occupation they might successfully follow.

Valid mental testing is the result of careful and painstaking study and statistical treatment, and is a legitimate tool to use in attempting to take

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[2] State Department of Education, Division of Immigrant Education, Bulletin 5C: *Grading and Placing of Foreign Students*, Ethel Swain.

[3] See "A Selected and Annotated Bibliography of Standardized Tests for Secondary Schools," Frank C. Touton, *California Quarterly of Secondary Education*, Vol. I, No. 2.

an inventory of the personal equipment of a student with a view to counseling him in the choice of subjects which will either prepare him for a new vocation or help him in securing promotion in one already chosen. Such tests may be given to the student individually or to the class as a whole. Evening school students do not seem to be adverse to taking such tests, and through them the teacher obtains a more homogeneous classification, better planned work, and discovers those who seem to be in need of further counsel and guidance.

Careful classification at the time of registration should be supplemented by a well organized follow-up program. The teacher should make it her business to know why pupils are absent. This may be learned through telephone calls, postal cards, or a personal call by the teacher or some member of the class. An attendance committee consisting of members of the class has been found effective. These students make it their business to try to get in touch with all students who miss more than two evenings in succession. In the case of young students it is often advisable to try to get in touch with the parent or guardian, while the co-operation of the employer will often help to sustain the interest of the student.

But all the mechanical tests and well-planned methods are not sufficient. The absolutely essential qualification of a successful evening school is a corps of teachers capable of creating and sustaining a warm personal contact between the school and the student. The teacher's own interest must be spontaneous, individual, and genuine. Night school students encounter many discouraging obstacles and their teacher must be to them a never failing stimulus and inspiration to sustained effort.

Furthermore, night school students have little opportunity for outside preparation, so that day school methods of conducting and planning class work are not successful. A highly successful day school teacher is often a failure in night school work for this reason. Teachers in this field of education need to be especially trained to an understanding of the peculiar problems of the evening school.

Before any justifiable course of study can be prepared for evening schools there must be knowledge of the needs of the students; for courses must be planned to meet these needs. Occupational preparatory courses must be planned to prepare students to enter new occupations, but there must also be occupational continuation or extension courses to fit the students for promotion in the field in which they are already employed; therefore, before an adequate program of study can be formulated for any evening school it is necessary to make:

1. A survey of local business and industrial concerns to ascertain what groups of workers have special training needs.

2. A job analysis to determine the kind of training needed for advancement in each field of work.

Short-unit courses should be prepared wherever the subject matter lends itself to such treatment. The short-unit course is defined as an intensified form of instruction given in a limited number of lessons and

planned to meet a specific need of a particular group.[4] Each short-unit course should be complete in itself, but these units can be so arranged that, taken consecutively, they provide a complete course of training in any desired field. These short-unit courses, planned to cover a definite amount of work in a specified time, give students an incentive for regular attendance. Their interest is sustained, they get the "attendance habit," and the number of eliminations is reduced.

Standards of achievement should be set up in each course and certificates of accomplishment issued, when the course is completed, to those who have earned them. These standards will necessarily vary according to the type of work carried on, but some definite goal should be established. In the Boston Evening Commercial High School, the following standards have been set up:

1. A diploma is awarded to pupils who have won twenty-four diploma points, which usually requires attendance at school on three evenings a week for four years.
2. Diploma points cannot be granted more than once in the same subject.
3. Not more than six diploma points can be earned in the same year.
4. The twenty-four diploma points must include at least three points in English.
5. Pupils shall receive no credit unless they have been present at least two-thirds of all sessions held during the term and unless work has been satisfactorily completed.

The subjects offered and the number of diploma points granted in the Evening Commercial High School are shown in the following table:

EVENING COMMERCIAL HIGH SCHOOL, BOSTON

	Diploma Points		Diploma Points
Advertising	3	English II	3
American Government	3	English III	3
Bookkeeping I	3	Merchandising	3
Bookkeeping II	3	Office Practice	3
Bookkeeping III	3	Penmanship	3
Civil Service (one hour)	3	Phonography I	3
Civil Service (two hours)	3	Phonography II	3
Commerce and Industry	3	Spanish I	3
Commercial Arithmetic	3	Spanish II	3
Commercial Law	3	Typewriting I	3
Economics	3	Typewriting II	3
English I	3	Phonography III	3

At the end of the year pupils who do not receive diplomas are granted certificates of proficiency in each subject studied.

The student desiring to earn a certificate of proficiency is stimulated to plan a definite course of study, and there is always vital interest in education that is related to a definite goal. The student who has such a plan, although he may later revise or even discard it, is much better off than the student who is just drifting, hoping to get somewhere but steering nowhere in particular. Outside interests generally prove stronger than

[4] Josephine Wronker: *Continuation Schools*, Utica, N. Y.

his interest in his school work and he generally reaches the port of elimination.

The composition of the student body in most of the evening schools makes it difficult to arouse a solid school spirit. Each group or department has its own curriculum, its own methods of instruction, and its own ends to be accomplished, and these rather clear-cut divisions make the formation of a strong student body almost an impossibility. But student activities, such as the school paper, dances, clubs, etc., are useful in sustaining the interest of the students, especially of the younger students, and, if not overdone, they often accomplish much good.

Even when the final word is said, however, when students are classified with care, when teachers are efficient and are co-operating to the fullest extent in trying to hold their students, there will be those who will become discouraged, or change their minds, or circumstances will come up that will necessitate changes in programs. There should, therefore, be a "known place to go"[5] where difficulties may be talked over, counsel received, adjustment made, and the elimination of the student prevented if at all possible.

[5] Stone, William H.: *Personal Service in Education.*

MY IDEAL OF COLLEGE*

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IT would seem that success is only measured from a material standpoint, and that college is but a means to that end; but upon reflection I realize that there is more to this modern world than the comforts and pleasures of material prosperity. A true scholar does not consider the value of money alone; he hopes to attain knowledge through study and experience, and by attaining it, to form a strong and honest character that will give him a keen sense of values and a fine appreciation of the beautiful and noble things around him.

He hopes, too, that he can aid more than himself by his learning. If he becomes a great and powerful man, he aids the general welfare of his people, and it is possible that he may be of some actual service to his country or to humanity by the specific knowledge that he has acquired. It is upon these hopes and ideals, for which every scholar strives, that my ideal of college is based.

In my opinion, the development of character should be the primary aim of the institutions of higher learning. Character is an asset that is far more valuable than any amount of material prosperity, and if it can be developed during the four years or more of college, the institution's duty has been

* This was the prize-winning essay announced last November in the annual high school essay contest conducted by the deputations committee of the University of California. The purpose of the essay contest, sponsored by the committee, is to stimulate a wholesome interest in university life among high school pupils. It is here published as a sample of what a prize-winning essay of high school grade is considered in California, and to show what a high school pupil thinks a college should mean to him.—Editor's Note.

well fulfilled. Primarily, the development of character depends upon two things, study and experience, and my ideal of college would include these two factors with equal importance.

When I go to college, I do not wish to acquire facts in such a way that the incentive for my work is fear. Before I enter college, I must have the desire to learn, and if I do not have this desire, college will be a waste of time. On the other hand, if I work upon my own initiative along the lines of work that are interesting to me, I shall gain immeasurably by the facts that I learn, and when I have absorbed the facts involved in the study of the subject, I shall be ready to go into research work with my instructor as guide and companion. It is impossible for many students to make honest attempts at mastering a subject when they study only with the fear of failing to pass the final examination, for it is always easier to work with an instructor than for an instructor.

College should also give me the experience that I need to round out my character. Athletics and social contacts with other students will have much to do with this phase of the building of my character, for self-control, courtesy, good manners, and tact are essential to my growth. In athletics I shall learn the first of these—self-control, and by mastering myself I shall be more able to become a leader among men. I shall acquire courtesy both on the athletic field and in the contacts I make with other people, while good manners and tact I shall gain only by social contacts, but I shall use them constantly throughout life. Thus I shall have acquired knowledge not from books but from experience and I shall have a definite sense of relative values gained through contact with people and through the necessity of tolerance and respect for their ideals and ideas.

But I believe that there is more to be gained from college than character, for it is not the only essential to success and service. A broad outlook upon the world and its various races is also necessary and it should be the secondary aim of the colleges of today. Because of this, I must have a clear vision of life, a full realization of its problems, and a feeling of sympathy for other people less fortunate than I. I cannot gain this from study nor from the experience that I would have in four years at a university. It would come from a deeper and more profound vision of life than can be gained by study—that of actually mingling with various classes of people. To my mind, an ideal college should not be confined entirely to one place, for travel would be a certain way toward the understanding of other people and their problems. In my ideal of college, at least one year of travel would be a definite part of the curriculum.

There is one other essential to my ideal that is also necessary to my success—religion. It is foolish to say that religion does not exist, and it is equally foolish to maintain that religion as it is expressed today is necessarily the correct theory of life. Old ideals and standards have been shaken, but somewhere in the present chaos, the truth must exist, and it is the task of the college to find it. In my ideal of college, religion will be not necessarily confirmation of certain statements, but through the development of character, broadmindedness, and an understanding of the problems of today, the realization of the abundant life.

PREDICTING COLLEGE FRESHMAN SCHOLARSHIP*

ELVEN T. ELLEFSON
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STATEMENT of the Problem. The increasing enrollment in the high schools and colleges is making the problem of determining fitness for college more difficult and more urgent. This rising tide is accompanied by an expansion in the range of purposes, abilities, and preparations of the students seeking admission.

The growth of the junior high school and the diversification of curricula in high school and college are still further upsetting the earlier and rather fixed college entrance requirements, thus adding to the complexity of the problem.

Changing Standards for College Admission. Meanwhile the trend is away from entrance requirements of large numbers of prescribed courses and toward a more liberal choice of academic subjects; together with stricter personal standards of capacity, interest, industry and quality of preparation. The extent and variety of specific preparation are not as greatly needed as formerly. These are being overshadowed by certain minima of intelligence, preparation, and industry forming a single fundamental standard of admission requirement to all colleges (regular, junior and teacher's) and to all their departments under the assumption that all collegiate work is of essentially equivalent quality.

Best Risks Favored. Hence there is a very definite movement for the high schools to send and the colleges to accept the "best risks" selected on these criteria. Harvard, for instance, recognizes the value of this method by admitting any student without examination from among the highest one-seventh of the graduating class of any acceptable high school.

For a solution of this problem of more satisfactorily fitting the school, the student, and the college to each other nothing short of thorough-going studies in curriculum construction from top to bottom of the educational ladder is required. And this should be followed up with expert educational guidance from the kindergarten to the university.

But our immediate problem must remain that of predicting college success from high school measures. For this purpose there have been increasing amounts of experimentation, measurement, and study of the factors involved.

Means of Determining Fitness for College. The psychological test, especially, has been found to be a useful adjunct to the tools for determining fitness for college. Thus, one of the most important factors, if not the most important, is being fairly adequately measured.

Tests for measuring the educational accomplishment of the student have been made more comprehensive, objective, and reliable. They serve

*For bibliography to this study refer to p. 198.

as valuable checks on the preparation of the student as indicated by his high school record.

But it would seem that the most valid single measure would be the one that is taken under conditions most similar to those under which the student will again be measured in college.

The nature, quantity and quality of the high school work should, therefore, be the single most predictive factor for college success. Many factors are not directly measured, but indirectly they are measured, and that in proportion to the part they play in determining school and college success. And this includes intelligence.

Grades are, of course, not very reliable measures of scholastic performance either in high school or in college. Ruch has found that in college they correlate less than .75 when one semester is compared with another. But, unreliable as they may be, we must improve our means for predicting them.

Marks Not Reliable Data. Since the students, teachers, and the meaning of the marks differ widely from school to school it is highly desirable for each school to determine the best criteria for college fitness from its own data. That a state-wide agreement or general understanding really does not define the standards for college entrance is clearly indicated by the results of a study of the distribution of marks in high schools of varying size made by D. A. Emerson. Over 40,000 grades in 30 different high schools in one locality were investigated. These schools ranged in size from less than 50 students to more than 2,000. It was found that had the schools used the same grade standard of "1" and "2" which is currently used as a basis for recommending to college, six times as large a proportion of the students from the smaller schools would have been admitted to college as from the largest schools. This would have been justifiable had the brighter students and the better work been found in the small schools, a condition in general not in agreement with the results of accurate surveys and general observation.

What Is the Relation Between High School Credits and College Success? The present study has grown out of the request of a member of the University of California High School Affiliations Committee for definite information as to the relation between the number of academic credits earned by a student in high school and his subsequent average grade for the first semester in college.

The lack of relation shown ($r = .06$) was as expected. But the results seemed not only very inadequate but misleading. The range of credits offered was too small and no account was taken of the quality of the student's work. It was further thought that intelligence was the chief determining factor.

The problem was then set to determine the relation between college success as measured by the average grade for the first semester in college and various available high school measures and combinations of these.

It further became one of the purposes of this study to discover good criteria upon which to recommend students to college—criteria that will be based upon actual experience rather than upon tradition, published

standards, or mere opinion as to what should constitute adequate preparation for college.

The Selection of the Data

The study was limited to students from one high school who have entered the University of California during the years 1921 to 1924. It was further limited to those on whom complete data for the study could be obtained. So that all the results are quite comparable. A total of 134 cases was thus selected.

College success was measured by the student's average grade at the end of the first semester. It seems likely that higher correlations would have been shown had this measure been in terms of the numbers of honor points instead. The student's load as well as the quality of his work would then have been considered.

The correlations would most likely have been further improved if the grades for more than one semester had been included. The reliability would then have been increased. But the University of California as well as many other colleges report the number of first semester students whose average has been above the average grades of the lowest one-third of the freshman class. And since the high school is interested in sending students who will be successful on this score, the comparisons were made on the basis of the average college grade.

On the assumption that the students who withdrew from college during the first semester really did so on account of failure in their work, these were arbitrarily assigned a grade of "E" or "5." That the assumption was fully warranted was shown by the results. But since these cases do not fall on the regression or prediction line, but below it, the correlations were slightly less than they would have been had these cases been omitted.

General intelligence was measured by the Otis Group Intelligence Scale (Advanced Examination), but the Oakland Method of scoring was used. This differs from the regular scoring in that the scores on the first, sixth, ninth and tenth tests were omitted and the fourth (proverbs) and fifth (arithmetic reasoning) tests were given double the regular weight.

Measures of the high school preparation were obtained directly from the student's record card giving the grade for each semester credit. Two credits are thus equal to one standard high school unit; thirty-two credits being required for graduation.

Academic credits include mathematics, chemistry, physics, biology, foreign language, history and English.

A "rec" is a grade of "2" or "1," a "non-rec" is a grade of "3," and "4" is a failure. The meaning of these grades in terms of distribution can be seen from the fact that for three successive semesters the number of "1's" constituted from 12 to 14 per cent of the total number of grades in the school (6,200), the "2's" from 39 to 40 per cent, the "3's" from 31 to 34 per cent, and the failures from 14 to 16 per cent. Thus, about one-half of the grades were "recs."

Age was determined to the nearest month at the time the intelligence test was taken.

Statistical Treatment of the Data

Although the number of students in each case was small the correlations, means and standard deviations were calculated for each year and for the four years. In this way the work was split up into convenient units, a check obtained, and the constancy of the data and relations indicated.

The intelligence scores were correlated with nearly all the other measures in turn. With college success the correlation was both low (.31) and variable. And when age was held constant the correlation remained practically the same (.27). With all the other measures it was low and with some quite variable. With age (—.21) and with "non-recs" in mathematics, science, and foreign language (—.31) they were negative. The variability is in part due to the small number of cases. But the small relation with a standard deviation of 19.8 about a mean of 126.0 or a coefficient of variation of 16 indicates that the test was insufficient for that age. Other intelligence tests have usually yielded appreciably higher correlations. According to the U. S. Bureau of Education Bulletin No. 35 "the correlations between college success and intelligence tests have been higher than between college success and high school records." This, of course, depends upon the particular test used. And it would tend to be truer where students come from many different schools having marking systems with widely different meanings and all the courses have been given equal weight. Our findings are in agreement with the results of studies made at the University of Minnesota indicating that the psychological tests are less reliable than high school records in predicting college success.

Age showed a low negative (—.31) relation to college success and when intelligence was held constant this remained practically the same (—.25). With mathematics, chemistry, physics, biology, foreign language "recs" the relation was (—.11) and with the "recs" minus the "non-recs" in the same subjects (—.27). These age correlations indicate that the older students are rather uniformly slightly poorer college risks than the younger students.

The number of academic credits showed practically no relation (.06) to college success. No account was taken of the quality and the range was too small. The number of academic credits offered did not differ much. The standard deviation was 3.7 about a mean of 26.7 or a coefficient of variation of 14.

The total "recs," irrespective of the nature of the subjects taken, is usually used as a basis for recommendation. This showed a fair (.53) correlation with college success.

Confining the "recs" to the academic subjects as defined above brought the correlation to .56. And reducing the subjects to those that are more particularly college preparatory; the mathematics, chemistry, physics, biology and foreign language, left the correlation about the same (.57) despite the decrease in range. The low (.37) correlation of history and

English with college success further showed that the more predictive of the academic subjects is the mathematics, science, and foreign language group.

When the intelligence was held constant the "math-science-language-recs" correlated .51 with college success. When both age and intelligence were constant the relation was .52. The multiple correlation of college success with age, intelligence and math-science-language recs was .62.

The math-science-language "non-recs" showed a fairly uniform but negative correlation (—.54). When these were added to the "recs" in the same subjects the correlation fell to .38. This agrees with the study carried out by W. W. Clark whose data indicated that there is very little relation between college success and the extent to which students have completed certain specific academic preparatory courses required or recommended by the colleges.

But when the "non-recs" in these same subjects were subtracted from the "recs" the correlation rose to .65.

The history and English group showed a low predictive value. But when the "recs" in only English L 11 and H 12 (low eleventh and high twelfth grades) and history L 12 and H 12 were added to the math-science-language recs the correlation with college success became .59. In addition the inclusion of English L 11 and H 12 and history L 12 and H 12 samples the English and history courses and increased the emphasis on the latter part of the high school course.

The Weighted Score of High Value. Since it was found that the "non-recs" math-science-language had correlated almost as highly negatively with college success as the "recs" in the same subjects had correlated positively and by subtracting the "non-recs" from the "recs" the highest correlation had been obtained a similar combination of the grades in mathematics, science, language, English L 11 and H 12 and history L 12 and H 12 would obviously still further raise the correlation. Besides a preliminary scatter diagram with a fractional weighting for a grade of "1" showed an increased correlation. It was, therefore, decided to weight all the grades in these subjects. The weighted score was determined by putting a grade of "4" equal to a score of —2, grade "3" to —1, grade "2" to 1 and a grade "1" to +2. The weighting chosen may be a little excessive but the results have shown that the use of cumbersome fractional weighting is not warranted. A slight excess in the weighting of the relatively small number of "4's" and "1's" does not appreciably affect the relation of these scores with college success, especially at the critical level.

This weighted score brought the correlation with college success to .66.

Sometimes a student who has earned a grade of "3" or "4" will repeat the subject or take additional subjects for the sake of the "recs." By this weighting the fact that more than one semester has been required to do the work of one semester or that many subjects have been attempted before the minimum number of "recs" have been accumulated is not disregarded as it is where only the number of "recs" is counted.

We have here then a convenient method for taking into account not only the quality but at the same time the quantity and the nature of the high school work. In this respect it is like an honor point system. And it is in this method of evaluating the student's work in preparation for college that the chief difference between this and other studies of the problem lies.

Relations Revealed by Scattergrams. The relations were further studied by means of scattergrams. These revealed that the correlations were not as close for the lower ranges as for the higher, a common situation in such correlation scatters. Other and unmeasured factors play a relatively bigger part at the lower ranges. Here some students who are really not prepared for college achieve a fair grade for the first semester by capitalizing some other qualities. Thus, one girl with only three math-science-language "recs" made an average grade of B by taking only nine units of botany, history and English. These were just the subjects to which she had practically confined herself in high school. A boy of high intelligence with only one "rec" in the same group achieved an average grade of B.50.

However, these exceptions usually find academic success rather precarious and tend to remain just long enough to get whatever else they come to college for.

It was interesting, too, to note that all of the ten included in the study who withdrew from college during the first semester lacked preparation especially in math-science-language.

A few of the students who were prepared failed to make a satisfactory grade. One of these with 13 "recs" in math-science-language made an F in chemistry and an average grade of D.25 but he had taken no physics in high school and had made but one "rec" in math. Another, twenty years of age, with 23 math-science-language "recs" (the highest number in the whole group of 134) made a grade of D.38. This student worked four hours per day at a gasoline station. It is also known that an inordinate amount of time was taken up with one of the women students. He remained in college but one semester and is now employed at the service station.

These four cases were the ones that deviated most from the prediction line, appreciably reducing the correlations.

Regression coefficients were then calculated from the correlations and standard deviations, and the regression or prediction lines of college success from the various data constructed upon the scattergrams. The critical or threshold line separating the upper two-thirds of the first semester students from the lower one-third as reported by the University of California was drawn at C.20. The position of this line is fairly constant from year to year, varying from about C.20 to C.25. The part of the prediction line that falls below this critical line indicates failure and the intersection of these lines marks the critical score below which failure is more probable than success. The next score above this critical score is the minimum with a greater probability of success than of failure. But the standard deviation of the estimated score lies between .75 and

.80 of a college grade unit for the different predictions. In other words, about two-thirds of the estimated average grades at college will lie between three-fourths and four-fifths of a grade unit above and three-fourths to four-fifths of a grade unit below the prediction line. To still further insure success the criterion score should, therefore, be somewhat above minimum.

That the correlation, the prediction line, and the minimum high school score for college success are fairly dependable is shown by the fact that nearly all the failures were bunched below the minimum score, especially with the best criteria. This is most easily seen with the scattergram. The measures correlating the highest with college success were also the ones that left the fewest number of failing students that had entered with the minimum or more of the high school score. Of these there were only 9 and 7 respectively in the math-science-language, English L 11 and H 12 and history L 12 and H 12 score and "recs."

On the other hand, about 20 students who, according to the critical college grade and the prediction line, were not prepared for college did make good the first semester. Some of these, it has been pointed out, remained but a short time. Others, despite their handicap, remained to make good. This is understood when it is known that the lack of recommending grades earned in high school may be due to inferior work in the college preparatory subjects or to not taking these subjects. In the latter case the student may by dint of intelligence and hard work and judicious choice of courses in college, counteract this handicap.

Summary and Conclusions

We have here then (in the number of "recs" in mathematics, chemistry, physics, biology, foreign language, English L 11 and H 12 and history L 12 and H 12 and in the weighted score in the same subjects) two measures of fairly high predictive value despite the relatively small number of cases, the low reliability of the marks in high school and in college and the large number of undetermined factors.

If to these measures a measure of the industriousness of the students could be added the probable college success could be determined with a high degree of certainty. Mark A. May in an article on "Predicting Academic Success"* has shown that the number of hours that the college student spends in study has many times the weight of the average high school grade in determining the number of honor points earned.

May, in this same article, says, "It would be an interesting scientific study to determine the minimum number of units a student could offer and still have a fair chance of success." On a small scale that is what in effect has here been approximated for one school.

The fixing of minimum requirements for college success is in keeping with the movement to select best risks. At the same time the differentiation of the college curricula calls for appropriate preparation and this in turn postulates responsible expert guidance all along the line from the kindergarten to the university.

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*Jour. Educ. Psych., Vol. 14, 1923, pp. 429-440.

HIGH SCHOOL FAILURES

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A STUDY of failures in California high schools has been made with the express purpose of determining, if possible, methods and means which will reduce the number of failures in high school, and more important, ameliorate the set toward failure in school and in after-school life which attends repeated failure in high school subjects. Concurrently, the study shows the causes of failure from teacher and pupil viewpoints, the acceleration of instructional and administrative costs occasioned by failures, the relation of scholarship marks and marking systems to success or failure, and the relation of intelligence to failure. Data were drawn from representative high schools in the state and local conditions were given due weight in arriving at conclusions.

Large Percentage of Failures. Mr. Arthur Gould, Assistant Superintendent of Schools in Los Angeles, speaking before a group of Southern California teachers and administrators,[1] called attention to the increasing number of failures in high school subjects for the year 1925. The percentage of failures, said Mr. Gould, ranged from 2.4% to 27% of students enrolled in high school subjects, and, within the span of the past four years, showed an increase of from ½% to 6%. English failures varied from 12% to 16%; mathematics, 12% to 14%; foreign languages, up to 20%; science, 7% to 8%; commercial subjects, 7% to 12%; art, 2%; music, 1%; mechanic arts, 8% to 10%; home economics, 2% and physical education, 2%.

In 1922 a survey of a large group of failing students revealed the fact that 12.1% failed in science; 11.5% failed in languages; 10% failed in mathematics; 9.5% failed in English and 7.5% failed in commercial subjects. No comparative figures were available at that time, but the data were sufficiently accurate and comprehensive to show that more than 7.3% of students in high school subjects were failing in 1922.[2]

The figures for 1926 are not encouraging. In eleven California high schools, during that year, the median of failure in high school subjects showed: History, 17 per cent; mathematics, 12 per cent; English, 17.5 per cent; languages, 19.5 per cent; commercial subjects, 12 per cent, and science, 8.1 per cent. The remaining subjects of the curriculum were incomplete in returns, but indicated, in every instance, no recession from the figures of 1922.

Failures Increasing. That the percentage of students failing in high school subjects has not decreased, but, on the contrary, has increased, may

[1] At meeting of Southern California Commercial Teachers' Association, November, 1926.

[2] "Study of Failures," B. E. McCormick. *School Review* 30:431-42, June, 1922.

be easily deduced from the following table. Surveying the distribution of grades given, the medians of scholarship average, and displaying the type of discrepancies that exist in eleven California high schools of approximately similar enrollment, includes 19,416 grades received by approximately 4,700 students in the school year 1926.

TABLE I

A STUDY OF GRADES AWARDED 4,700 STUDENTS IN ELEVEN CALIFORNIA HIGH SCHOOLS

(19,416 GRADES)

1926

High School	*Grades:* *A*	*B*	*C*	*D*	*Inc.*	*E*	*Median Scholarship Ave.*
1	14.0%	28.1%	29.7%	15.1%	1.1%	12.0%	3.47 C
2	23.2	34.8	30.8	1.1	0.0	9.9	2.77 B
3	17.5	30.5	23.9	11.2	3.7	13.0	3.80 C
4	18.0	39.7	21.3	10.2	2.4	8.3	2.82 B
5	19.9	35.2	31.8	6.5	1.3	5.7	2.86 B
6	26.0	31.1	25.0	7.9	1.8	7.0	2.78 B
7	12.0	27.9	30.8	19.3	1.4	8.7	3.32 C
8	20.2	40.6	25.1	6.0	2.0	5.4	2.06 B
9	23.0	38.3	18.7	7.3	3.6	7.7	2.68 B
10	15.4	32.1	22.7	13.6	0.6	15.6	3.10 C
11	11.7	30.2	36.1	8.0	4.7	9.3	3.22 C

(1 to 1.99 = A, 2 to 2.99 = B, 3 to 3.99 = C, 4 to 4.99 = D, 5 to 5.99 = E.)

It will be noted that the median of failures in these eleven high schools is 8.7%. School number eight has the lowest per cent of failures, with median at B, while school number ten has 15.6% failures, with median at C. The student's chances of failure are twice as great in school number ten as in school number eight.

Comparing the percentage failure with the normal curve of distribution as given by Rugg—7% A, 24% B, 38% C, 24% D, 7% E—we find the median school having the closest approximation to the curve of distribution, with a variance of 1.7% in failures and 5.0% variance in A grades. Two schools show almost twice as many failures as does the median school, and one school (number ten) has more than twice the failures shown by the normal curve of distribution. On the contrary, but two schools of the eleven have decreased their per cent of failure below the 7% allowed by the normal curve. One follows the failure per cent precisely; two vary 10% and 31% above the norm.

If we may judge other California high schools by the results here set forth, the per cent of failures in high school subjects is very considerable. When 8.7% of high school students fail in one or more subjects (a large number fail in two, three, and four subjects) the situation becomes acute. As an educational product, failures are a loss to the state and the community. There is real need for administrative and instructional reform which will tend to reduce the number of failures and their frequency of occurrence.

Cost of Failures. The cost of failures, in dollars and cents, is enormous. The state, the home and social institutions of every type look to

the schools to produce an educational product which shall be commensurate with the investment made by the taxpayers. They do not expect perfection. They desire every boy and girl in the community between the ages of six and sixteen be given at least a "common school education." They are willing to pay for it and pay generously. But they do not want to pay for failures!

Costs of instruction in California high schools tend to increase with each succeeding year.[3] A large part of the increase is due to the natural growth in school population and to outlays occasioned by increases in teachers' salaries. Failures in high school subjects, however, contribute to the increasing instructional cost in no uncertain terms.

The Tragedy of School Failure. "The most tragic thing in the life of a child is his failure to win school success. That school which provides a small success for *every* pupil, for *every* teacher and for the janitor, *every* day, is the best school. The memory of past success develops the belief in one's power to do something. It may be necessary for *some* pupils, at some time, to get an honest gauge of themselves by failure, but the high school must provide *every* child an opportunity for success. In his club, in the laboratory, on the athletic field, somewhere, a democratic, socialized high school must make provision for every boy and girl of high school age to find the thing he or she wants to do and can do with success."[4]

Causes of Failures. There have been many reasons given for failures, some excuses. H. R. Atkin says[5] we call students failures who have done approximately as well as they are capable of doing—failures because they do not keep up with students who can do two or three times as much work. Professor J. B. Edmonson of the University of Michigan made a study of failures in high school subjects in 1924-25,[6] and, as a result of his research, drew up a list of 30 reasons why students fail. Among these reasons three stand out as extremely important: (a) the practice of teachers of placing an excessively high value on the results of final examinations, (b) the failure of teachers to define the minimum essentials in their course and to provide adequate drill, and (c) the policy of deferring pupil progress appraisals until the end of the semester or term.[7] The larger number of reasons have to do with teacher-pupil and pupil-curriculum difficulties. Incompatibility of pupil and curriculum seems the reason most often given as the cause of failure. From such evidence the question naturally follows, "Is the school made for the student or is the student made for the school?"

To understand the cause of high school failures it is necessary to have at hand two points of view. The teacher views failure from one angle, the student from another. Occasionally both will agree as to the cause of

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[3] 1924-5: H. S. Enrollment, 347,818; Teacher's Salaries, $130.01; Salary Expenditures, $187.35.

1925-6: H. S. Enrollment, 384,100; Teacher's Salaries, $131.75; Total Salary Expenditures, $190.91.

Enrollment Increase, 10.421%; Teacher's Salaries Increase, .0133%; Salary Expenditure Increase, .0181%. Based on Average Daily Attendance. Biennial Report, State Supt. Pub. Instr. for 1925-26 (1927), p. 297ff. Table 154 C.

[4] Milton D. Procter, "What Makes a High School?", *Penn. School Jour.*, May, 1927.

[5] H. R. Atkin in *School Review* 33:363-4, May, 1925.

[6] "Why Pupils Fail in High School," *School Review* 33:402-4, June, 1925.

[7] See also "Reactions of High School Pupils to High School Subjects," Jesse E. Adams, *School Review*, 35:354-362, May, 1927.

failure but quite often the student "covers up" the real cause, feeling it useless to voice it. The causes ordinarily given for failures are teacher causes. Rarely are student causes presented.

Table II is a study of 2,830 failures. The teachers and failed students in eight California high schools were asked to write down the causes for failure, according to a check list previously prepared. From this data the following table was drawn up:

TABLE II

A STUDY OF TEACHER REASONS AND PUPIL REASONS EXPLAINING FAILURES IN EIGHT CALIFORNIA HIGH SCHOOLS

(MEDIAN ENROLLMENT 1,086)

1925-26

%	*Teacher Reason*	*Frequency*	%	*Pupil Reason*	*Frequency*
14	Insufficient home study	399	11	Insufficient home study	313
9	Lack study	254	7	Do not know how to study	198
4	No home study	113	8	No home study	227
5	Poor study habits	139	9	Dislike subject	254
8	Failed in tests	201	7	Discouraged	194
7	Lack of effort	256	8	Lack of effort	231
5	No written work	197	6	Teacher fails to explain	174
8	Mentally slow	228	6	Hesitate to answer	166
2	Lack interest	59	5	Lost interest	142
6	Poor foundation	167	6	Insufficient foundation	170
12	Irregular attendance	308	4	Absence	114
4	Lazy	109			
3	Health reasons	88	9	Dislike teacher	256
4	Late entrance	99	1	Late entrance	27
1	Too many subjects	29	2	Too many subjects	56
1	Athletic interference	27	3	Lack time	83
1	Social activities	26	3	Outside work necessary	84
4	Idleness	131	5	Idleness	141
100		2830	100		2830

Total enrollment 34,547
Total failures 2,830
Per cent failures 8.19
Pct. number subjects failed 2.3441

From this study it will be seen that students, in the main, present the same fundamental causes for failure as do the teachers. But, what teacher would be apt to put down "Dislike the teacher," "Dislike the subject," or "Teacher fails to explain," as causes for failure? One-fourth of all reasons for failure, as given by failed students, are grouped under these three reasons. That such should be the case gives occasion to serious thought on the part of teachers and administrators generally.[8]

The student is willing to admit failure because of insufficient study at home. He does not rate it, however, as important as does the teacher (students 26%, teachers 32%). On the other hand, the teachers give 308 instances of failure out of 2,830 as being caused by irregular atten-

[8] Similar results were secured by Jesse E. Adams in a study of high school failures in Kentucky. *School Review* 35:354-9, May, 1927.

dance. The students assign this as a cause in only 114 out of 2,830 instances.

How like adolescent boys and girls to cover over discouragement (7%) and loss of interest in a subject (5%) with bravado, or bluff, or sullen conformance, take a "failure," and sigh with relief when the subject is completed. The teacher sees it only as "failed in tests" (8%), "no written work" (5%), "lack of effort" (9%), or just "mentally slow" (8%). Both student and teacher agree on "insufficient foundation," although the teacher is, perhaps, the better judge of the two. That the teacher should not count "outside work" a cause of failure is strange. The student, perhaps the very one who works after school hours, thinks it important (3%).

The causes of failure show conclusively that the major problem of secondary education is the adaptation of the curriculum to the student. The student's attitude toward school work, his "out-of-school" habits, and his longing for an adequate response to the expression of his personality are the factors influencing his ability to succeed. In the final analysis success or failure on the part of the student depends in an increasing degree upon the preparation, personality and attitude of the teacher. That teacher who recognizes and acts upon the idea that habits of study are greater than subjects mastered is on the high road to eliminating failure. That school which can build up happy relations between teachers and students, students and curriculum, will never have any considerable number of failures.[9]

Individual Causes of Failure. It is of little value to the administrator or teacher to know the per cent of failure, the cost, distribution and comparison of failures, the teacher and pupil reasons for failure, without an understanding of the individual causes for failure. Knowing the individual cause or causes, quite often a failure may be "reclaimed," or, working out into teaching method, may be avoided. To turn failure into success by even the narrowest margin is a justifiable and worthy ambition.

Dr. Frank C. Touton, in a recent reading habit investigation[10] found that the most common errors, in the 20,003 studied, were due to:

(1) the inability to isolate the elements of an involved statement (29.1%),
(2) inability to grasp the full meaning of the question as stated, (22.5%),
(3) inability to select the best from among several possible answers (17.0%),
(4) inability to associate related elements, (14.7%), and
(5) inability to follow a thought through a maze of detail, (4.7%).

The individual causes of failure among high school students as shown by a study of 327 failed students in two California high schools (Table III) are similar in many respects to the causes of reading errors, according

[9] A study of failures reported in *School Review* 33:402-4, June, 1925, shows the percent of failures does not depend on the size of classes, (b) nor upon subject studied, and (c) is not particularly related to any one year of the curriculum.

[10] Frank C. Touton, *Educ. Research Bulletin*, L. A. City Schools, Vol. 6, No. 4, January, 1927.

to Touton. They differ, in that eight characteristic reactions were secured by test and interview, indicating the trend in mental habits which result in failure.

The per cent frequency would have been greater had it not been shown that several teachers, through tests and interviews, accompanied, no doubt, by special attention, had converted many potential failures into passing students. Discovering the individual cause, which if permitted to run its course through the term or semester would eventuate in failure, the teacher was enabled to apply remedial instruction at the most opportune time. Improvement of students will almost certainly result where attention is given to typical individual causes for failure. Effort put forth by the student will make fewer failures possible. Where students are made conscious of their "set toward failure" and are required to direct their conscious effort toward success in high school subjects, coupled with practice, significant gains in reducing the number of failures will be made.

TABLE III

A STUDY OF INDIVIDUAL CAUSES OF FAILURE IN TWO CALIFORNIA HIGH SCHOOLS

1927

Individual Cause (Determined by Test and Interview)	*Frequency (%)*	
Failure to segregate essential idea, fact or figure	26.21%	
Lack of orientation	6.17	
General response where specific response required (generalization)	7.04	39.42 (orientation)
Failure to distinguish right from near right	10.30	
Failure to "check up," "to verify" or "to prove"	2.91	
Inadequate understanding of vocabulary, both specialized and general	8.01	21.22 (selection)
Not willing to think through a project from beginning to end, even though a suggestion as to method is given	11.47	11.47 (maze)
Failure to make associations among related elements	12.10	12.10 (association)
All other causes, such as absence, late entrance, too many subjects, outside work, social activities, athletics, et cetera)	15.79	15.79
		100.00%

Marks as a Cause of Failure. Marks measure something, but in most school systems we do not know what. Teachers tell students not to work for marks, but so long as marks determine progress and assume to measure growth, students will be intensely interested in them. Teachers' marks determine whether the student is to be rated a success or a failure. They are the basis of promotion or retardation, and when a sufficient number have been accumulated, for graduation. Entrance to college, qualification for athletic and student body offices, scholarship awards, honor courses and many other desirable school awards are based on marks. The entire school career of high school boys and girls is dependent upon and determined by marks.[11] Is it not strange that we give so little training in marking when so very much depends upon it?

[11] "Intelligence Scores and Success," W. H. Hughes in *Educ. Admin. and Super.*, v. 12:46-8, January, 1926. Clearly shows the effect of marks on scholarship.

"The truth is," writes Professor Buckingham,[12] "if the parents of our pupils really understood the nature of the grades we give in school, they would compel us to develop a greater expertness in estimating products, processes and materials, and would necessitate, among other things, the adoption of better testing."

To abolish marks and give ratings of "passed" and "failed" does not solve the problem. It only aids in "setting" more failures. There is much evidence[13] that there is a greater difference among those passed than among those failed and those who barely pass. Accurate ratings through the use of impersonal, objective measurements is a more satisfactory attempt to solve the problem.

In his book, *Commercial Tests and How to Use Them*,[14] Sherwin Cody observes, "Business men have had very little confidence in school marks, largely because they know that marks represent a mixture of considerations and it is impossible to tell which consideration was dominant." He arrives at the conclusion that the only scientific basis for school marks is a double record of absolute achievement and relative improvement, separately stated. "During the period of study, the improvement that is made is the important thing, and the poorest and best have equal credit for just what they accomplish. At the same time it is a gross injustice to the community to send out graduates with high marks when they have not attained the degree of mastery which entitles them to such marks." Hence the need to mark improvement and achievement separately.

If we are to have marks at all, the best single mark for each subject is one based upon absolute achievement of each individual student. We must define the exact quality of the student's work. The mark must measure and report these attainments, no others.

Several remedies, arising, for the most part, from teaching experience, suggest themselves. The solution to the problem of failures is not one for the teacher alone, however. It takes form and substance as much from pupil-curriculum difficulties as from pupil-teacher maladjustments. It demands the cooperation of the student and the home, as well as the teacher and the administrator.

(1) Discover the causes—the real causes—for failure. Every high school should make both teacher and student analyses of failures each term or semester. No progress in eliminating failure can be made until the causes are known.

(2) Change from the present kaleidoscopic marking methods to a more scientific basis for determining achievement and improvement. Standardized tests are rapidly being worked out in all high school subjects. Their use eliminates the personal element and measures, not memory, but

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[12] Buckingham, J. R., *Research for Teachers*, 1926. Several chapters are devoted to marks and testing.

[13] Wood, Ben, *Measurement in Higher Education*, 1923. Especially Chap. 6.

[14] 1919, Sherwin Cody, P. 50ff. Mr. Cody presents a scientific basis for school marks.

ability to do. While it is true that ability to do and doing are two very different things,[15] the use of standardized tests as a measure of achievement and a setting of the mile post in improvement is so far superior to older methods of measurement that the entire problem of reducing, and in the end eliminating, failures, hinges on their use. Every activity of the student can be measured and evaluated objectively by standardized tests. A standard system of marking, based on these objective tests, showing both teacher and student exact and comparable ratings, will hasten the day when every student may attain a measurable quantity of success.

(3) Give credit for work done in terms of what the student is capable of doing. It requires a change in teaching method to accomplish this desirable goal. While class instruction is the end in view, each student is treated as an individual, so far as achievement and relative improvement are concerned, and is measured against his own inherent ability. Most students start the study of a high school subject with a rating of E, or, at the best, D. It is the task of the student, through achievement (measured by objective tests, evaluation of work done, etc.) and relative improvement (measured by daily and weekly progress, attack, finish, etc.) to work up the scale toward an A. It will soon be apparent that students tend to classify themselves and to grade themselves according to what they actually accomplish, based, not on a comparison with another student who may be a better or a poorer worker, but upon the student's own accomplishment compared with what he might accomplish (A) within the range of his individual ability.[16]

(4) Group together students of similar abilities. So much has been said and written about ability grouping that it would seem trite to mention it as a remedy for failure. Yet in the 27 high schools and 16 junior-senior high schools studied only 9 make a practice of ability grouping. Several more have a number of classes, entrance to which is determined by ability ratings, but mixed groups still predominate in the group studied. It is an observable fact that where ability grouping is practiced failures are less in number than where it is not.

(5) Adapt the curriculum to the student. The curriculum of the high school is constantly changing. It is in a constant state of evolution, year after year witnessing changes which reflect the growth and adjustment of boys and girls. In spite of this constant change slightly more than half the failures cited above (Table III) failed because of curriculum difficulties.

A high school curriculum should make provision for every student to experience life in a socialized community. It should make provision for the backward boy or girl and for the "bright" boys and girls. It should provide an opportunity for development of self-control, for creative instinct and initiative, and training for the successful use of body and mind in solving present situations and performing present tasks. For only by

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[15] Hughes, W. H., ibid. page 46. "What one accomplishes depends upon both inborn ability and its habitual use."

[16] Prior to using this method of credit the writer found in seven years he had awarded 167 failures and 2015 successes—8.28% failure. In the last two years his failures have been reduced to 1.87%. A change in method showed a decided reduction in the number of failures.

present activities and attitudes can future behavior and interest be adequately promoted.

There is a difference between a high school where students acquire a way-of-behaving and are given a chance to learn how to think and a high school where students learn what to think. The newer type of high school provides for student enterprise. It sees that students work out their own problems under guidance, that they gain self-mastery and self-impulsion. It provides, in a word, real experiences—and thereby reduces failure to the absolute minimum.

Summary

1. The per cent of students failing in high school subjects is increasing. In 1922 7.3% of high school students were failing in one or more subjects. By 1926 the number had mounted to 8.7%.

2. Failures occasion a loss in educational product which is reflected in the increased cost of instruction. Failures are the "bad accounts" of the educational process.

3. Maladjustment of pupil and teacher, pupil and curriculum are the two most apparent reasons for high school failures. Almost half of all failing students fail because of difficulties with the curriculum, from evidence presented both by teachers and failing students.

4. Failure is not dependent on large size classes, nor upon the subject studied, nor is it particularly related to any one year. Failure is occasioned by inability to segregate essential ideas, to give specific and definite responses to situations, to segregate that which is nearly right from that which is right. Thirty-nine per cent of high school failures are due to difficulties in orientation and 21.2 per cent are due to faulty selection. Other causes are "balkiness," difficulties of association and unwillingness to react to life experiences as presented by the high school.

5. Marks, which determine success or failure for the student, and marking systems are in a period of transition. The "subjectivist" continues to measure memory and personal response. The "objectivist," with his standardized accomplishment and relative improvement tests, undertakes to measure in a more impersonal and scientific manner, such things as achievement and improvement. Under subjective methods there have been many failures and the per cent is increasing. Experience with the newer methods of testing and marking seem to indicate the possibility of assuring to every boy and girl in high school opportunity to attain success within the range of his or her ability.

6. The remedy for high school failure involves the discovery of the causes, both individual and teacher-student. Without causes no results may be attained. Further, it involves a change in teaching method insofar as marks and marking systems are concerned. Giving credit to students for work actually done and measuring that work against their ability to do is the sure road to success for the students and a sure eliminator of failures for the teacher. Grouping students according to ability, when put into full practice, will also eliminate failures. Above all, failures may be reduced to the ultimate minimum when the curriculum is efficiently and effectively adapted to the needs and wants of the students.

PROGRAM, HIGH SCHOOL PRINCIPALS' CONVENTION
Long Beach, April 2-6, 1928

MONDAY, APRIL 2—P. M.

A. 1:30. General Session - - - - - - - - William John Cooper, Superintendent of Public Instruction, Presiding.

Keynote Address - - - - - - - - Leonard V. Koos, Professor of Education, University of Minnesota.

B. Meeting of High School Principals' Association - Homer Martin, President

TUESDAY, APRIL 3—A. M.

Curricular Programs:

The English Major - - - - - - - - - John Aseltine, Chairman
The Art Major - - - - - - - - - - Helen Howell, Chairman
The Music Major - - - - - - - - Charles R. Chaney, Chairman
The Agriculture Major - - - - - - - - J. A. McPhee, Chairman
The Homemaking Major - - - - - - Maude I. Murchie, Chairman
The Industrial Arts Major - - - - - - - J. C. Beswick, Chairman
The Commercial Major - - - - - - - - - L. B. Davy, Chairman

TUESDAY, APRIL 3—P. M.

1:30. The Social Program for the High School - Dr. Alexander C. Roberts, President, San Francisco State Teachers College

Section Meetings

Section 1. Schools of 1,000 and More—
The High School Fraternity
Discussion led by E. W. Oliver, Los Angeles
A Program for Girls
Discussion led by Miss Anna G. Fraser, Oakland

Section 2. Schools of 400 to 1,000—
A Unified Social Program
Discussion led by H. W. Jones, Piedmont
Administration and Supervision of the Social Program
Discussion led by W. E. Elmer, Santa Cruz

Section 3. Schools of 100 to 400—
Developing the Right Community Attitude Toward Social Activities
Discussion led by McCall Aldrich, Chino
Criteria for Evaluating Social Activities
Discussion led by Roy E. Learned, Elk Grove

Section 4. Schools of Less Than 100—
What Activities Should a Small High School Undertake?
Discussion led by B. M. Carner, Gonzales
How Can They be Administered and Financed?
Discussion led by H. Rode, Etna

Evening Session

Illustrated Lecture on Secondary School Architecture - Andrew B. Hill, Jr., Chief of Division of School House Planning

WEDNESDAY, APRIL 4—A. M.

A. 9:30. Rural Schools:
Address - - - - - - - - - - - - - Helen Heffernan, Chief of Division of Rural Secondary Schools

B. 9:30. Urban Schools:
Address - - - - - - - - - - - - - Nicholas Ricciardi, Chief of Division of Urban Secondary Schools

Section Meetings

Classification and Counselling

Section 1. Schools of 1,000 and Over—

Classification - - - - - - - - George C. Jensen, Sacramento
Guidance - - - - - - - - - - E. W. Jacobsen, Oakland
Section 2. Schools of 400 to 1,000—
Classification - - - - - - - - - - J. R. McKillop, Selma
Guidance - - - - - - - - - Curtis E. Warren, Marysville
Section 3. Schools of 100 to 400—
Classification - - - - - - - - - - Louis P. Linn, Fresno
Guidance - - - - - - - - - E. O. McCormick, Fair Oaks
Section 4. Schools of Less than 100—
Classification - - - - - - - - - - Homer Cornick, Davis
Guidance - - - - - - - - - - - - R. A. Condee, Chino

WEDNESDAY, APRIL 4—P. M.

Special Groups

Physical Education and Health - - - - - - - - - - N. P. Neilson, Chief of Division of Physical Education
Transportation - - - - - - - - - - S. J. Brainerd, Tulare
Speech Arts - - - - - - - - - K. L. Stockton, Huntington Park
Part Time Education - - - - - - - - - - - Nicholas Ricciardi, Chief of Division of Urban Secondary Schools
Records and Reports - - - - - - - - - - - Walter Morgan, Chief of Division of Statistics and Research
Standards for Secondary School Libraries - - Charles E. Keyes, Oakland

Evening Session

Dr. Wm. H. Snyder, Hollywood, Presiding

Entrance Requirements to College and College Preparatory Courses—A discussion by principals and representatives of the University of California and Teachers Colleges.

THURSDAY, APRIL 5—A. M.

General Session

Nursing - - - - - - - - - - - - - - Miss Maude Landis, Supt. of School for Nurses, Stanford University Hospitals

Reports on Majors.
Report on Tax Equalization.
Report on Physical Education.
Report on Transportation.
Report on Records and Reports.

THURSDAY, APRIL 5—P. M.

Section Meetings

Junior High School Section:
Social Program - - - Discussion led by D. L. Hennessey, Berkeley
A Junior High School Teaching Technique - Mrs. Helen Watson Pierce, Los Angeles

Junior College Section:
Terminal Courses - - - Discussion led by Merton E. Hill, Chairman
Relationships to University and Professional Schools - - - J. W. Harbeson, Pasadena, Dr. B. M. Woods, University of California

Evening High School Section (Walter B. Crane, Los Angeles, presiding).

FRIDAY, APRIL 6—A. M.

Junior High School Section (Helen Heffernan, presiding):
Conflicts and Maladjustments of Adolescents - - - Dr. Anita Mühl
Exploratory Courses - - - - - - - - L. P. Farris, Oakland

Junior College Section:
Problems of Finance - - - - - - - - C. W. Morris, Modesto
Standards of Equipment - - - - - - - J. B. Lillard, Sacramento
The Faculty - - - - - - - - - - A. C. Olney, Kentfield

BOOK CHAT

THE LANGE BOOK

Book Chat could serve no worthier purpose in this issue of THE QUARTERLY than to emphasize to teachers and principals of secondary schools the value of *The Lange Book* which preserves to education notable papers of Dr. Alexis F. Lange, for many years Dean of the School of Education at the University of California.

Did you know this man? Did you know him personally, educationally, spiritually? If not, then know him through his papers on education; if you knew him, you will cherish these as a rich legacy. He lived and thought and spoke a generation or more beyond his time. He was born of the intellect and the spirit. He looked into the future and was unafraid. He was a living challenge to the educational dogmas of his day. Much that he thought and spoke and wrote, the school people of California have been thinking after him for a quarter of a century. But let others speak.—THE EDITOR.

HARR WAGNER,
EDITOR, THE WESTERN JOURNAL OF EDUCATION—

The Lange Book, the collected writings of a great educational philosopher, edited with an introduction by Arthur H. Chamberlain, is a wonderful contribution to educational philosophy and educational literature. The foreword is a model of clear statement, sympathetic consideration and well organized thought. It so intrigued me that I wanted to read every page of Dr. Lange's source material.

DR. W. W. KEMP,
DEAN OF THE SCHOOL OF EDUCATION, UNIVERSITY OF CALIFORNIA—

To me it is a book of first importance in the educational field. A rare opportunity is afforded teachers and administrators to know intimately a truly great leader in this field.

PROFESSOR CHARLES E. RUGH,
UNIVERSITY OF CALIFORNIA—

Dr. Lange was a great educational prophet but withal a very practical man. . . . He was too busy a man to write just for publication. These gems of educational literature were in response to particular situations and must be read in the light of the occasion for which they were prepared. These articles are educational history as well as educational philosophy, and Mr. Chamberlain has done an inestimable service to California and to education in bringing out *The Lange Book.* It will be of great personal interest to those who knew Dr. Lange and of inspiration to the young men and women who are now in active service.

A. J. CLOUD,
CHIEF DEPUTY SUPERINTENDENT OF SCHOOLS, SAN FRANCISCO—

The book is a monument to the great teacher's wisdom and vision. It develops his philosophy of education in final and complete form. Dr. Lange foresaw the junior college; he foresaw the junior high school; the modern curriculum; rural school supervision; and the relation of vocational education to life. His pronouncements on these several themes, as set forth in this volume, are as modern as if written yesterday. His utterances are as clear and direct and forcible, and as convincing, as may be found in the published works of any other educationist. *The Lange Book* should be read by every teacher, should be a guide to every administrator, and should be placed in school libraries everywhere, so that ready access may be had to it by those engaged in professional school service.

Contents of The Lange Book

Part I—Reorganization.

1. Our Adolescent School System.
2. The Correlation of the Parts of the School System.
3. Variety and Unity in Education.
4. The Reorganization of Rural Education.
5. State Board of Education.

Part II—Secondary Education.

6. Self-Directed High School Development.
7. New Wine in New Bottles.
8. The Rural High School: Its Mission and Efficiency.

Part III—Junior College.

9. The Junior College—What Manner of Child Shall This Be?
10. The Junior College.
11. The Junior College as an Integral Part of the Public School System.
12. The Junior College, With Special Reference to California.

Part IV—Higher Education.

13. Should the University be the Central Authority in a Unified School System.
14. Some Phases of University Efficiency.
15. The Upper Division.

Part V—Curriculum.

16. Report of the Committee on Readjustment of Course of Study and the Certification of Teachers.
17. Literature as Educational Means.
18. Some Present-Day Demands on the Teacher of Latin.
19. The History Teacher's Opportunity.

Part VI—Professional Training.

20. Teachers for Democracy.
21. The Teacher as Leading Citizen.
22. An Adequate Supply of Teachers Adequately Trained.
23. The New High School and the New High School Teacher.
24. The Course for Training Secondary School Teachers.
25. Preparation of High School Teachers; from Standpoint of the University.
26. The Problems of Professional Training for Women.

Part VII—Other Educational Papers.

27. An Educational Research Syndicate.
28. Adequate School Legislation.
29. Observations on Physical Education in Germany.
30. Preparedness.
31. Our Preparedness Program.

The Lange Book was edited by Arthur H. Chamberlain and is published by The Trade Publishing Co., 619 California Street, San Francisco. $3.50 per copy.

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THE HAPPY SOLUTION OF A DOMESTIC DILEMMA

One night the Tired Business Man approached his front door with the grimness of a soldier going over the top without a gas mask. It was Monday night, the weekly anniversary of the supper at which the serpentine fumes of cabbage had first brought discord into a domestic Eden. For more than a thousand Monday nights his wife had smothered corned beef in cabbage. She had an irreconcilable fondness for cabbage; but his sympathies had always been with the corned beef.

This particular evening the embers of revolt had flared up under the influence of an incendiary headline which he had just read in the evening paper.

"HUSBAND LEAVES HOME: HOT DOGS! Got Nothing to Eat but Frankfurts, Chicago Man Complains."

His case seemed more desperate than this. Although a man can politely refuse to eat hot dogs, he reasoned, the fumes of cabbage defy the protestations of a hunger-striker. Yes, tonight he would "complain," and in no uncertain terms.

The Tired Business Man opened the door, and, wonder of wonders, there was no cabbage in the atmosphere—and his wife was sitting in an easy-chair before the fire. While he inhaled the unpolluted atmosphere with perceptible satisfaction, relishing the perfume of wood-smoke from the fireplace, she explained:

"You see, dear, it's this way. Mary is studying a school-book called *Everyday Foods* and it contains some things called projects which the girls are expected to work out at home. So I'm giving her a free hand tonight and we'll see what she produces."

"Well, perhaps I won't have to starve," said Father, under his breath.

When Mary announced dinner, Mother was surprised to find the dining room arranged more attractively than usual; and Father liked the food so much that Fido was limited to a dog-biscuit dinner.

Father's pleasure showed itself when he complimented Mary later in the evening and asked her how much such a sumptuous meal had cost.

"Oh," said Mary, "almost nothing. I made it out of Sunday's left-overs and a few little things which our book tells us how to buy cheaply. But, Father, since your bills are going to be so small, I wish you'd buy me a copy of Harris and Lacey's *Everyday Foods* so that I can own a copy for use in my own home if I ever have one. It tells you everything you want to know about food and cooking it—all about calories and vitamins. It recommends menus, and makes a lot of practical suggestions for each meal. And it's lots of fun! You will buy it, won't you?"

"Surely I will," replied Father, confidingly, "and one for your Mother, too. Who is the publisher?"

HOUGHTON MIFFLIN COMPANY

612 Howard Street, San Francisco

ANCIENT AND MODERN LANGUAGES

The early spring promises to be a red-letter season for language teachers. Professor Ralph V. D. Magoffin, President of the American Classical League, and Dr. Margaret Y. Henry, Head of the Department of Classical Languages, Franklin K. Lane High School, Brooklyn, New York, are the authors of *Latin for the First Year,* to be published in February. All the unique features of this book should be mentioned, but its appearance so impresses us that we are tempted to speak of that alone. The beautifully set pages, the open form of the lessons, and the simple stories with correlated illustrations, inspire us with a new enthusiasm for the Romans and the things they did. Of course, teachers will be interested to know that the material in this book was used in mimeographed form before final revision for publication, and that in both method and material, the book conforms to the spirit and specific recommendations of the Report of the Classical Investigation.

The Muses, a supplementary reader for first year Latin, by Dr. Lillian B. Lawler, Professor of Latin, University of Kansas, will be ready in March. It contains easy, carefully graded reading selections, grouped according to type of material in nine chapters, each named for one of the nine muses. The illustrations are beautiful.

Bible Stories, by A. Lipsky and Harry Wedeck, of the Seward Park High School, New York, will also be published in March. This book is to contain simplified stories from the Vulgate, illustrated by reproductions from mediaeval and modern paintings, and accompanied by various types of review and progress-test exercises.

Little Studies in Greek, by Dr. Jane Gray Carter, Associate Professor of Classics, Hunter College of New York City, has just been issued under the editorship of Dr. Magoffin. The book is not a Greek text of the traditional sort; it does not attempt to give a full or detailed treatment of the language; and only Greek words which have English derivatives are introduced. It provides the means of obtaining a working knowledge of the Greek language and an understanding and appreciation of Greek literature and art. It will be helpful in high school or college classes for non-classical students, or for supplementary work by students whose major interest is classics. It will be especially useful to teachers of Latin and to students and teachers of English and the sciences who have not had a regular course in Greek. Fifty-nine illustrations fill the book with the atmosphere of Greece.

The Modern Foreign Language Study has already made available the Buchanan word list, the first scientific basis for the determination of vocabulary in Spanish texts. This list has been used in selecting the vocabulary in *Fundamentals of Spanish,* a beginning Spanish book to be published February 7. The authors are Louis Imbert, Assistant Professor of Spanish, Columbia University, and Francisco Piñol, Associate Professor of Romance Languages, Connecticut College. The connected reading passages, clear presentation of grammar, and interesting exercises, make it a beginning book worthy of special consideration.

While we are talking about modern language texts, we must mention *Junior French,* by Louis J. A. Mercier, Associate Professor of French, Harvard University. Reports from teachers who are using this book, indicate that it marks a forward step in the teaching of French to American pupils.

SILVER, BURDETT AND COMPANY

149 New Montgomery Street, San Francisco

GENERAL BUSINESS TRAINING

During the past two or three years, there has been quite a bit of material published to meet the needs of the eighth and ninth grades for what is usually termed "Junior Business Training."

Our company has recently published a text, *General Business Training,* to meet the needs of the eighth and ninth grade classes for which a general course in business is desired. In fact, this junior business training text contains very valuable material for all students. Its purpose is to give each a general understanding of the business methods, procedure and principles which are used by everyone regardless of occupation. In the field of business education, *General Business Training* meets the same need as is met in the field of science by texts on general science. In the preparation of this text the following points have been emphasized:

1. *General Business Training Is Practical.* Before any material was included in this text, it was measured by this question: "Will this information be valuable to all or a majority of the class?" This careful selection resulted in including only that material useful to pupils who continue the study of business, pupils who continue in school but who study other than business subjects, and pupils who take a job at once.

2. *Thrift Is Stressed.* A study is made of budgets—simple records kept by individuals and families. Methods of planning expenses to insure reasonable spending and saving are developed. Accumulation of savings as early as possible is emphasized.

3. *Students Are Encouraged to Remain in School.* Whenever possible throughout the text suggestions have been given to indicate the desirability of completing high school. There is danger of pupils leaving school as soon as they can get a job.

4. *Background for Business Training.* Fundamental information is provided which will aid the student in mastering other subjects in the business course. Simple account keeping is presented along with other general business information.

5. *Vocations.* Different types of positions are discussed with the qualifications which each demands. There is discussion of how positions may be selected and secured and how promotion may be obtained.

6. *Preparation for a Position.* Definite training in business is provided to assist those forced to leave school in securing a desirable position. *General Business Training* does not give details of various minor positions in large organizations since few students will occupy positions of any one kind. Rather it develops general business principles and methods which will enable the student to adapt himself to any position in which he may be employed.

With *General Business Training* a pad of forms is provided for the convenience of the student in completing the exercises in the text. Those interested in the very latest text on junior business training should ask for a sample copy.

SOUTH-WESTERN PUBLISHING CO.

526 Mission Street, San Francisco, California

THE GINN PAGES

WHY A BOOK REVIEW?

This is a question which the editors of the CALIFORNIA QUARTERLY and educational publishers in general have tried to answer many times. Sometimes we have suspected that the average review is of no use—and at other times we have felt sure that it is extremely valuable to us and of great interest to the readers of THE QUARTERLY who are naturally interested in the professional literature of their subjects.

One plan that has attracted a good deal of interest was inaugurated recently by the *Washington Education Journal*. Each month this journal publishes a list of books submitted for review by the publishers. These books they offer to send to their readers who volunteer to review them. The book is sent to the reader with the understanding that he review it and send in his review for publication by the journal. This assures reading by an interested reviewer and has produced reports on books that are far more interesting and stimulating than perfunctory book reviews to which we have been accustomed in many journals. The practice of other journals has been to turn over new books for review to members of their own editorial staffs or to outside specialists. These reviews are scholarly but they often lack the appeal that comes from a review written by someone actually concerned with teaching the subject for which the book is meant.

It would seem that specialists in the editorial department of the publishers or the authors of books would make the best reviewers. Usually, however, they are too close to the book itself and too greatly interested in details connected with it to write reviews which appeal to the people who are to use it. On this account publishers always welcome opinions of new books from teachers who have given to the book the best test of all; that is, the test of classroom experience or the test of the judgment of the skillful classroom teacher. These reviews or opinions may be amateur productions from the standpoint of the publishers but they are professional productions from the standpoint of the user. They certainly are more interesting to other educators than the reviews or opinions produced by the specialist remote from actual school needs.

Many a textbook has been improved decidedly by the voluntary opinions that have been sent in by teachers who were often unknown either to the publisher of to the author. That brings up the point that the best letters of commendation or the best reviews are not necessarily those that are filled with praise. Praise given to a good book is naturally encouraging to the publisher and to the author, but sometimes constructive criticism is just as interesting and many times more helpful. In the long run, it is rendering the publisher no service if the praise of a text leads to its being introduced into a place where it turns out to be unsatisfactory. No responsible publisher wants to see his text introduced where it will not be satisfactory. Such introductions in the long run are productive neither of good will nor of profit.

We presume that most of the readers of the CALIFORNIA QUARTERLY do not belong to the Z group of educators. You are not interested in

multiplying textbooks but, because of your interest in certain subjects, you are anxious to promote the development of textbooks that represent advances in education. You can do no one thing that will help more in this development than to write the author or publisher or both commending the good that you find in their books and making suggestions for further improvement that occur to you as a result of your classroom experience. Ginn and Company urge you to do this. In the long run, great improvements in education are usually impossible without satisfactory textbooks and great textbooks are not developed by the authors and publishers alone. No successful book is published in its final form at first but its real success comes from the constructive help and suggestions received from teachers who use it in the schoolroom. A great textbook is almost like a living organism. It changes and grows throughout its life just as school practices change and grow. To this growth the teachers who use it contribute a great deal by their suggestions and the improvements they recommend help other teachers to provide better methods and better materials for their students. That is the real reason why educational texts are so often revised. It would be more profitable for the publisher if he could keep the original edition unaltered, but competition in the business and the suggestions of progressive educators are powerful forces in keeping textbooks adapted to the needs of schools. It would be easy to illustrate this by a detailed study of any first class textbook or series of textbooks that has been in use for ten years or more. It would certainly show many important changes due often to recommendations from administrators and classroom teachers. The features approved by teachers will have been strengthened and the features they do not approve will have ben changed or eliminated. In other words, the development of a textbook is a co-operative effort in which editor, publisher, book reviewer, author, school administrator, and teacher all co-operate.

S. C. S.

45 Second Street, San Francisco

Here are a few reviews of the type that are encouraging to author and publisher, and are of help to fellow teachers:

Of First Year Latin

From Mrs. Edith Haines,

Woodrow Wilson Junior High School, Des Moines, Iowa—

I was a member of the committee which scored beginning Latin textbooks in the Des Moines high schools previous to the adoption of a new text. I was enthusiastic then over the new Gray and Jenkins book and I have lost none of my enthusiasm after seven weeks of classroom use. Psychologically it is a marvelous piece of work—in interest, a godsend—and in its well graded reading material and variety of drill devices the authors have almost accomplished the impossible. With us the teaching of beginning Latin is revolutionized. I am glad it happened in my day.

Of English Composition

From Laura Boucher,

High School, Walla Walla, Washington—

Of the chapters in Tanner's Composition and Rhetoric which have come most under my observation, I think I enjoy best the chapter on Exposition. It seems to

me that Exposition through the text, division of material; excerpts and exercises is made an appealing, interesting, vital subject. I find that the students actually write the exercises from enjoyment rather than from necessity. For the same reason, I greatly enjoy covering the sketchy chapter on the Short Story. Somehow, after covering it, I always wish there were more of it.

I also enjoy using those thought provoking Appendixes. Ordinarily I feel that to a certain extent an appendix is an addition of no great value. However the additions to Tanner's Composition and Rhetoric are invaluable for a summary and review.

In short, I like the book because the author with all his wisdom has kept the spirit of youth and has been able to give us a *text* that scintillates with that elixir which understands, instructs and inspires the young.

Of Bookkeeping

From Julia Shuflet,

Teacher of Bookkeeping, Nottingham High School,
Syracuse, New York—

Jackson, Sanders, and Sproul's Bookkeeping and Business Knowledge is proving to be a very satisfactory textbook for our class in Bookkeeping I. The language is so clear and concise and the development so orderly and logical that the students have no difficulty in mastering the principles of the balance-sheet approach. I especially commend the many interesting questions and illustrative problems, and the thought-provoking, practical, class discussions. I like the laboratory problems because they offer me a real measure of the student's ability. I am glad to recommend this very excellent text.

Of American History

From Mary A. Edwards,

Girls' Collegiate School, Glendora, California—

The History of American People by Muzzey impresses me most favorably—a decided improvement on "American History" which was good. Increased clearness of presentation, added map equipment, definite questions at end of chapter, minimizing of details of actual warfare are items which will be helpful in vitalizing the study. I should like also to express appreciation of the spirit of kindliness and idealism which pervades the text.

Of Physics

From Hedwig Zorb,

St. Paul's School, Walla Walla, Washington—

As a user of the former edition of Millikan and Gale's Elements of Physics, I am especially glad that the new edition does not sacrifice the concise and logical arrangement of material of the old—which is like that of a college text, which most of my students are preparing to use. I greatly appreciate the new features, especially summaries and simplified problems—it makes an excellent teachable text, worthy of the dignity of the subject.

ART SURVIVES

Art survives. All that is known of the older civilizations has come to us through what remains of their art. The rich chronicles of the historians are indebted to the artists of those remote periods whose annals they recount. The scribes of the early days before the invention of printing, to whom philosophy, mathematics, and even science stand obligated, were artists themselves. And today it is the countries which hold the greatest legacy of long past art which are sought for study and inspiration by the ever widening cultured class. We find them traveling to Egypt, especially since the recent archeological discoveries, and to the Orient whose mysterious veils are slowly being lifted by revelations of early Chinese art. On this continent it is as a key to past civilizations that we value the results of excavations in Peru, Gautemala, and Mexico.

Our art in America has yet to achieve a greatness proportionate to her many magnificent achievements. Of these, her engineering, her building, only start the list. But her art, for many of the pioneer years, was neglected and lacked opportunity for development.

There is no such lack of opportunity now, although in the past, to be sure, the American boy or girl, as compared to the European, has not had the same chance for fine or applied art training. He has had the advantages of theoretical study as a part of his work in the academic institutions, but the opportunity of gaining knowledge by actually doing things in the art line has not fitted in well with academic subjects. However, applied art work is no longer neglected like the Ugly Duckling. The specialized art school has opened its doors to the talented student who, inclined toward art, can now find the special training he seeks, even as in Europe the undergraduate engineer finds his needs met in a special college of engineering.

The CALIFORNIA SCHOOL OF ARTS AND CRAFTS has always offered the maximum opportunities for the artistically inclined student. He presents entrance qualifications as prescribed by the universities of the State, and, during his art training, such academic subjects as serve to enrich his knowledge of art and to increase his standard of citizenship are included. He has all the advantages of the special institution, segregated from the academic, and the uninterrupted periods for practice and study so necessary for developing his art. To achieve distinction in the graphic arts, continuous and unbroken training is most necessary. The School remembers that "life is short, and art so long to learn" and provides every opportunity for learning it well, with ever as its goal, the highest standard of altruistic citizenship.

CALIFORNIA SCHOOL OF ARTS AND CRAFTS

F. H. MEYER, *Director*

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